MEADOWBANK GOLD PROJECT

RECLAMATION COST ESTIMATE

Prepared for:

WATER RESOURCES DIVISION
INDIAN & NORTHERN AFFAIRS CANADA
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1 INTRODUCTION

Meadowbank Mining Corporation (MMC) has proposed to develop the Meadowbank Mine, located in Nunavut about 70 kilometers north of Baker Lake. This report presents an estimate of the government's cost to carry out the anticipated scope of reclamation activities at the mine, if it becomes necessary to do so. It is expected that this cost estimate will be considered in the security requirements for the project. Separate totals for the land and water-related elements of the estimated reclamation liability are presented.

2 INFORMATION SOURCES

The information sources for this review include the following:

- Water License Application and supporting documents, and
- Comments from other reviewers on geotechnical issues.

A site inspection has not been conducted.

In addition to the review presented here, Brodie Consulting Ltd. has prepared 2 previous reports relating to the Meadowbank project. These were for the Baker Lake laydown and fuel storage area, and for the access road to the proposed mine.

3 RECLAMATION ISSUES

There are several outstanding reclamation issues associated with Meadowbank project. These are described as follow.

Freezing of Tailings

Section 4.2 of the Mine Waste & Water Management Plan does not fully address how freezing of the tailings pile will occur. It is likely that the downward advancing freeze front will result in discharge of cyro-concentrated pore water and swelling/deformation of the tailings deposit and cover. These processes are similar to the natural phenomenon which results in pingo formation. This process could go on for many decades as the underlying talik freezes.

It is understood that the majority of the tailings will freeze during operations. Not all of the water which freezes will result in discharge of cryo-concentrated fluid, as some of the water expansion will result in uplifting of the tailings surface. None-the-less, the proponent should make an estimate of the quantity and concentration of expelled water and provide a contingency plan should it be necessary to collect and treat the water.

Cover thickness – Tailings & Waste Rock

This is the most significant reclamation issue. There are several aspects of the cover concept which are cause for concern.

It is suggested in Section 5.3 of the Mine Waste & Water Management Plan that a rock cover of 2 m of NPAG material will contain the active layer above the PAG material. It is reported that this is based upon site thermistor data which shows a 1.5 m depth of thaw. The type of material where this was observed is not reported. Table 6.1 and 6.3 of the 2005 Baseline Physical Ecosystem Report lists the current active layer (i.e. before climate change considerations) as measured in drillholes. The average of these values is 2.14 m, which is greater than referred to in Section 5.3 of the Mine Waste and Water Management Plan, and is greater than the proposed cover thickness. There is no mention as to how this depth of thaw may be influenced by climate change.

Further insight can be gained from other northern mines. At the Ekati mine, the active layer in Panda rock pile is 4.5 – 5 m deep (BHPB, ICRP 2007 – an extract of that report is included here as Appendix A). The Ekati site is slightly warmer than Meadowbank, with a mean annual air temperature of – 9.2 versus –11.3 for Meadowbank. Rock covers for control of ARD at the Misery rock pile are planned to be 5 m thick.

At the Diavik Diamond Project, covers over PAG waste rock are planned to be 3 m of rock overtop of 1.5 of till, a total of 4.5 m, which includes the layer of till that will have relatively high moisture content compared to rock. That design is predicted to maintain the zero degree iso-therm above the PAG rock.

Modeling of the tailings cover is presented in Appendix III of the Central Dike Design Report. There does not appear to be any modeling of the covers over waste rock in the Project Description. The proponent seems to have assumed identical cover performance over tailings and rock.

A number of concerns with the modeling are identified as follow.

Table III-5 lists the material properties for the thermal models. The SG of cover rock is 3.44. However, Table 5.3 of the Mine Waste & Water Management Plan lists the SG of ultra-mafic rock as 2.91 (the iron formation rock which is PAG has an SG of 3.44). The lower density rock is likely to exhibit greater thermal fluctuations.

The proposed cover rock, ultra-mafic, is reported to range from weak to strong (Table 5.3 of the Mine Waste & Water Management Plan). At the Ekati mine the finer waste rock, such as the biotite schist at Misery, shows less convective cooling than the coarser granite rock at Panda and a much wider range of depth to the zero degree iso-therm.

It is suggested in Section 6.2; 3rd bullet, that the cover on the tailings will contribute to shedding of water from the surface of the tailings. It is not clear how a waste rock cover could do this. A cover of only 2 m of rock will not have a compacted surface like a rock pile as there will have been much less traffic than would occur on a rock pile. There may be very low runoff from the cover, with all water traveling laterally over the tailings through the lower portion of the cover. Lateral water movement within the cover will complicate thermal modeling. A conservative approach to modeling is recommended.

In summary, considering the above issues with the modeling, the observed thermal regime in rock piles at Ekati, and the covers proposed for Ekati and Diavik, covers for control of ARD at the Meadowbank site should be thicker than the proposed 2m. The issue is determining what thickness is appropriate.

The Meadowbank site is colder than the Lac de Gras region, as summarized in the following table. Consequently, the depth of thawing in a rock cover may be less than has

been observed at Ekati. Climate warming effects will offset this, causing an increase in the depth of annual thawing.

Comparison of Thermal Regime at Meadowbank & Ekati

Site	Mean Annual Temperature	Freezing Index (degree-days)*	Depth of Permafrost
Ekati	- 9.2º C.	4750	240 m
Meadowbank	- 11.3º C.	5500	450 – 550 m (est.)

* Freezing index is the annual sum of mean daily temperature for days with sub-zero temperature, source: Canadian Foundation Engineering Manual, Canadian Geotechnical Society, 1985

Based on the Ekati observations of the zero degree iso-therm at about 5 m depth, without any adjustment for climate warming, and recognition that the Meadowbank site is colder than Ekati, this estimate of the security requirements for Meadowbank is based upon a minimum cover thickness of 4 m.

MMC should re-assess the thermal modeling of the covers for tailings and waste rock. Ideally, this would include some sort of calibration considering the thermal records obtained at Ekati.

Post-closure Water Treatment

There are 3 minor potential sources of unacceptable water quality after closure:

1. Some of the rock exposed in the pit walls at closure may leach slightly elevated levels of metals (MMC, Static Test Report, 2005). Dilution during flooding of the pits appears likely to mitigate this issue.
2. In the closure plan, Section 7.1.4, page 7-3, it is noted that some rock may remain exposed above the ultimate flood elevation in the Portage Pit. It is not clear if there will be any PAG rock exposed in this area, although the potential exposure area is likely to be small.
3. As noted above, poor quality water could be expelled from the tailings area.

It has been assumed in preparing this report that all of these issues will not lead to a requirement for post-closure water treatment. However, it is recommended that MMC provide a prediction of the potential contaminant concentrations from each of these 3 sources after closure, and provide an operational monitoring and adaptive management strategy to ensure that there will not be post-closure impacts to receiving waters.

Revegetation

Vegetation in the Meadowbank area is described as typical of upland tundra. Mining plans call for removal of about 9M tonnes of till and lake-bottom sediments. Both of these soils could support vegetation, possibly with some amendments. There is a generic description of revegetation in Section 5.2.2. However, the only specifics in the closure plan are for encouraging natural revegetation in the building and roadway/airstrip areas. There does not appear to be any consideration to attempting re-vegetation in the pit perimeter areas or on the rock storage areas. The addition of seed and soil amendments could accelerate the restoration of the land at a very minor additional cost to the overall reclamation work. Cost provisions for revegetation have not been included in this report.

4 APPROACH TO COST ESTIMATION

The primary purpose of this report is to present an estimate of the reclamation liability. This estimate is to form the basis of financial security so that in the event that the company does not fulfill its obligations then the Government is able to do so without any burden to residents of Nunavut and, if necessary, Canadian citizens.

This estimate is based on the following general assumptions:

- the company goes bankrupt or abandons the property before starting reclamation work,
- no progressive reclamation is conducted, including interim covers on PAG rock or pumped flooding of the pits,
- all work is based on independent contractor rates,
- all costs are 2008 Canadian dollars,
- the cost estimate does not include any revenue from recovery of assets,
- the mine is developed substantially as planned,
- this estimate does not include costs for catastrophic events such as failure of dams, dikes or dump slopes.

This estimate assumes that the mine construction proceeds as proposed. It does not assume departures from plan such as dump construction without set-back on terraces for overall slope stability, expansion of the dumps beyond the indicated limits or significant departures from the current understanding on geochemical issues and quantities of PAG/NPAG rock. Any such departure from the mine plan may increase the reclamation liability.

The estimate has been developed using the RECLAIM model, a spreadsheet developed specifically for estimation of mine reclamation costs. The model is based as much as possible upon costs from the reclamation of other mines. It includes means to calculate a segregation of the total liability estimate into land-related and water-related components. RECLAIM has been used since the mid 1990's for estimation of mine reclamation liability at the majority of the mines in northern Canada.

Some detailed comments regarding the quantities of work and specific reclamation measures for each component and the detailed reclamation cost estimate are presented in Appendix B. All of the quantities of work and cost basis for each task are presented in the RECLAIM output, which is presented in Appendix C.

An estimate of the closure liability has been made for three points in the mine life; end of year 1, end of year 5 and end of mine. End of year 1 of operations (3 years after the start of mine construction) represents the liability after the start of mining and milling operations. End of year 5 represents the potential liability at the expiration of the original licence (assumed to be 5 years of operation). The end of mine life estimate presents the maximum potential liability associated with the mine development.

In keeping with conventional engineering practice, and considering the stage of mine development, this estimate includes a contingency. At this stage of mine development a contingency of 20 – 25% is commonly used. However, the reclamation plan for the Meadowbank Project is relatively simple, and this estimate includes an adjustment of the cover thickness for tailings and PAG rock. Therefore, a relatively low contingency of 15% is used. An even lower contingency would be indicative of a plan based on a comprehensive database of site specific parameters, detailed engineering, and proven reclamation measures, none of which exist at this stage of mine development.

5 CLOSURE COST ESTIMATE

The estimated total reclamation liability for the Meadowbank Mine is listed by mine component in the tables of Appendix C.

A summary is presented in Table 1. The estimated reclamation liability has been segregated into land and water components based on apparent mitigation of impacts to land or water resources.

Table 1

Summary of Estimate Reclamation Liability for the Meadowbank Mine

Exact Amounts & Break-down provided in Appendix C

Period	Total Reclamation Liability	Land-Related Reclamation Liability	Water Related Reclamation Liability
End of Year 1	$16,218,000	$8,593,000	$7,625,000
End of Year 5	$26,105,000	$10,264,000	$15,841,000
End of mine life	$43,875,000	$14,790,000	$29,084,000

The reclamation estimates presented in Table 1 do not include:

- Construction of fish habitat compensation features, (finger dikes and mounts). It is assumed that these costs will be addressed by DFO in habitat compensation agreement.
- Consideration for progressive reclamation which may be conducted.
- Any efforts for revegetation.
- Post-closure water treatment. There is a very small possibility that this could be required. MMC should develop a monitoring and adaptive management strategy to minimize the likelihood of post-closure water treatment.

It should be noted that the costs for monitoring and maintenance, and mobilization/demobilization have been split based upon the ratio of land and water-related costs for the primary reclamation activities. This approach assumes that the land

and water securities are pooled in the common interest of reclaiming the site. In the event that the securities are not pooled, then the parties holding the security should be aware that there may be a short-fall in funds if only the land or only the water-related portion of the work were to be conducted.

6 COMPARISION WITH MMC COST ESTIMATE

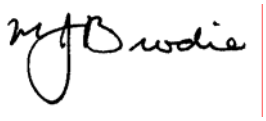
The following table lists key differences between this cost estimate and that prepared by MMC. Note that MMC has not provided estimates for years 1 or 5. The differences below apply only to year 8.

Component	Comment	BCL	MMC
Pits	• MMC volumes for dike breach are low • BCL pit flooding based on adaptation of Ekati pit flooding at $0.02/m3 for pumping	$2.44 M	$1.77 M
Tailings	• BCL estimate based upon 4 m thick cover versus 2 m in MMC report (MMC used 2.5 m thick cover in their cost estimate) • MMC has assumed progressive reclamation south of Stormwater dike is completed during operations • BCL estimate assumes rock cover is required in 50% of ultimate reclaim pond	$20.57 M	$5.49 M
Rock Piles	• BCL estimate based upon 4 m thick cover versus 2 m in MMC report (MMC used 2.5 m thick cover in their cost estimate)	$4.17 M	$2.47 M
Buildings	• BCL estimate includes adjustment for height of buildings • MMC estimate based upon LOW unit costs for all demolition	$6.06 M	$1.52 M
Chemicals	• Differences are minor	$0.54 M	$0.46 M
Mob/Demob	• BCL estimate assumes major reclamation equipment is not available in Baker Lake, it must be brought in by barge	$0.82 M	$0.22 M
Monitoring	• MMC estimate assumes up to 20 years of monitoring	$0.84 M	$1.72 M
Proj. Mgmt.	• BCL estimate is based upon 5% • MMC estimate is based upon 3%	$1.69 M	$0.43 M
Engineering	• BCL estimate is based upon 5% • MMC estimate is based upon 3%	$1.69 M	$0.43 M
Contingency	• BCL estimate is based upon 15% • MMC estimate is based upon 10%	$5.07 M	$1.42 M
	Totals	$43.88 M	$18.44 M
	Total Difference	$25.44 M	

Should there be any questions regarding the approach or conclusion of the report, please contact the undersigned.

Yours truly,

Brodie Consulting Ltd.



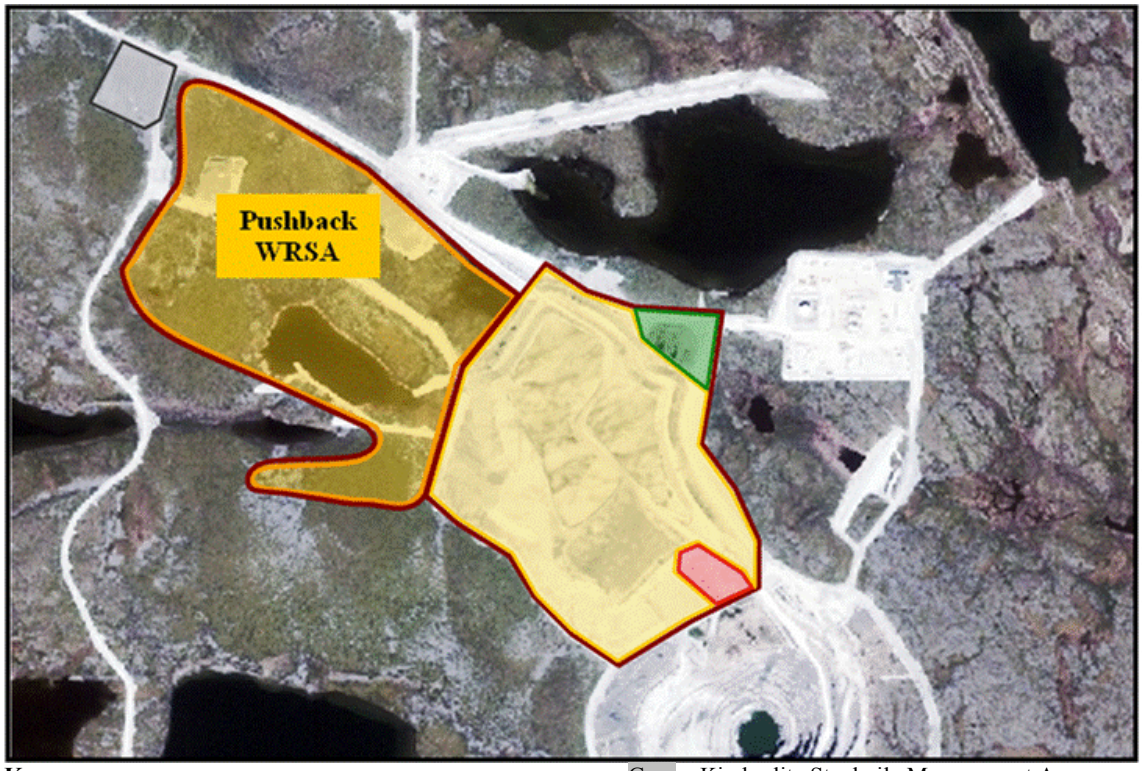
M. J. Brodie, P. Eng.

REFERENCES

- BHP Billiton Diamonds Inc. 2007, Ekati Diamond Mine, Interim Closure & Reclamation Plan, Volume 1 – Draft – January 2007

APPENDIX A
EXTRACT FROM
BHPB INTERIM CLOSURE & RECLAMATION PLAN
BHPB 2007

FIGURE 50. MISERY WRSA AND ORE PADS – MATERIAL LOCATIONS AT END OF MINE LIFE



Key:
Red – Landfill site,
Yellow – Mixed Rock Types,
Grey – Kimberlite Stockpile Management Area,
Dark Green – Topsoil,
Clear – Granite with minimal other rock types

6.3.3.4. WRSA Temperature Trends

Monitoring of the internal temperatures and build up of ice in the Panda/Koala/Beartooth and Misery WRSA has been undertaken by the installation of thermistors and piezometers since 2000. Measurements have been taken and plotted on a regular basis to allow comparison of the behaviour of the WRSA temperature trends compared with expected trends.

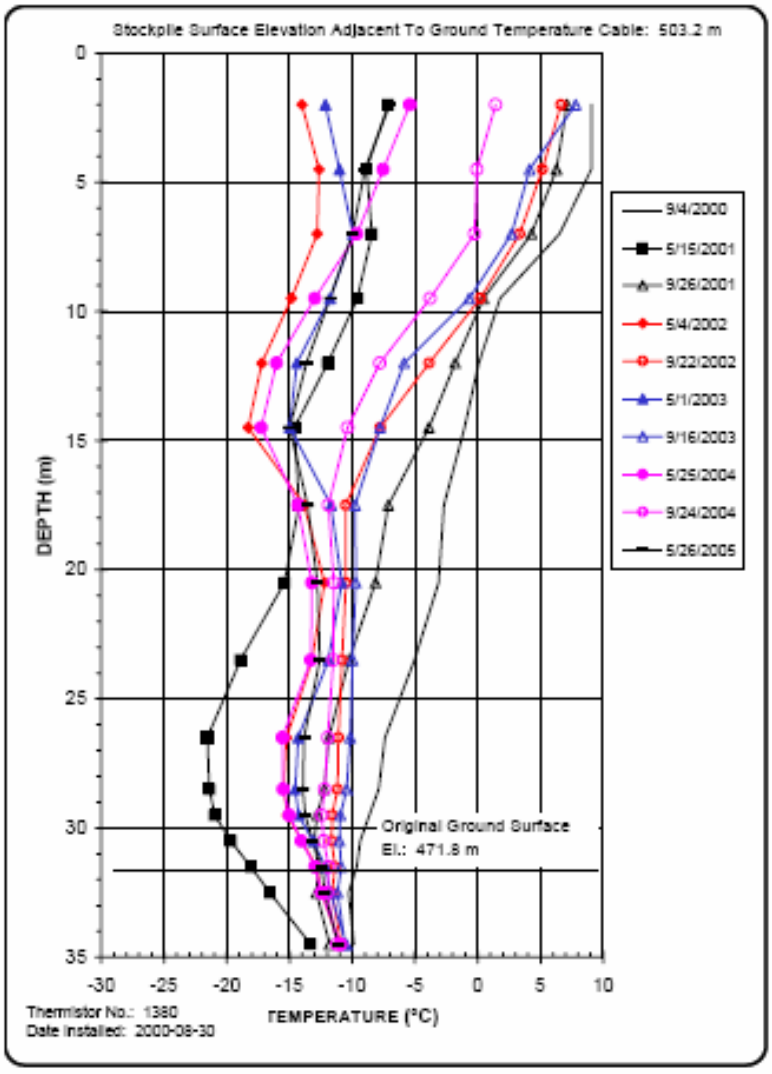
In summary, the results of the monitoring indicate that the temperatures in the WRSA are colder than the local permafrost and colder than originally predicted. The perimeter is significantly colder than the core temperature due to convection cooling cells which have become active around the perimeter. The design and construction of the WRSA has provided a setting which encourages permafrost growth, maintains temperatures below local ground values and therefore provide good chemical and increased physical stability.

6.3.3.4.1. Panda/Koala/Beartooth WRSA

The temperature of the Panda/Koala/Beartooth WRSA has been monitored since the thermistor cables were first installed in 2000, with later additions in 2002 and 2004. A total of ten cables are now installed in the rock pile and these are checked, monitored and recorded annually. A summary of measurements and results is provided in the following section.

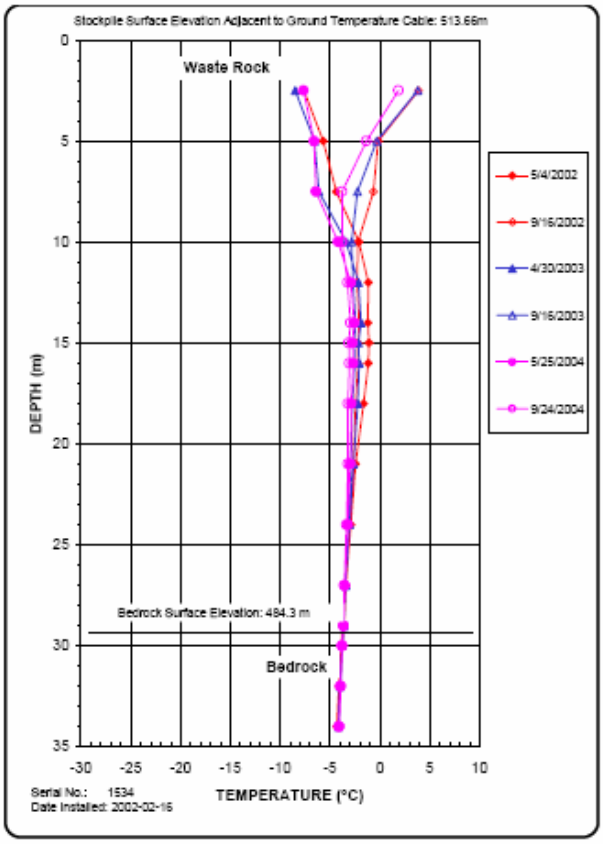
An example Ground Temperature profile from the margin of the Panda/Koala/Beartooth WRSA is shown in Figure 51. An example from the centre of the WRSA is shown in Figure 52.

FIGURE 51. GROUND TEMPERATURE PROFILE FOR SITE 4 (30M BENCH) PANDA/KOALA/BEARTOOTH WRSA : AN EXAMPLE OF A SITE AT THE MARGIN OF THE WRSA



Note: Surface covered with overburden Sept 2003

FIGURE 52. GROUND TEMPERATURE PROFILE FOR SITE 5 (CENTRE OF TOP BENCH) PANDA WRSA
AN EXAMPLE OF A SITE TOWARDS THE CENTRE OF THE WRSA



Examinations of the **ground temperature profiles** from the ground temperature cables installed in the Panda/Koala/Beartooth WRSA show the following:

- The entire WRSA is in a permafrost condition with the exception of the surface "active layer" that thaws to a depth of 4 to 6 m each summer.
- The temperatures around the perimeter of the WRSA (typically within 200 m of the toe of the pile) are significantly colder than near the centre of the pile. This is the result of convection cooling cells that have become active around the perimeter of the WRSA.
- The temperature profile at the centre of the WRSA is similar to those measured in similar natural permafrost soils/rock in undisturbed terrain around the EKATI site. Ground temperatures in the centre are controlled by heat conduction alone.
- The ground temperatures are continuing to get colder with time.
- There are two convective cooling cells occurring in the 30 m bench as evidenced by the bimodal temperature profiles that shows warmer ground temperatures at the boundary between the first and second lifts of waste rock (approximately at a depth of 15m). This should be expected because the first lift of waste rock was capped with a finer grained much less air permeable surfacing material, to permit easier haul truck and equipment travel on the surface of the first lift. Rather than a single large convection cell occurring, the less permeable layer leads to the formation of the two cells separated by the less permeable zone. The temperatures in each of the two cells are getting colder with time.

FIGURE 53. GROUND TEMPERATURE HISTORY SITE 4 (30M BENCH)
AN EXAMPLE OF A SITE AT THE MARGIN OF THE WRSA

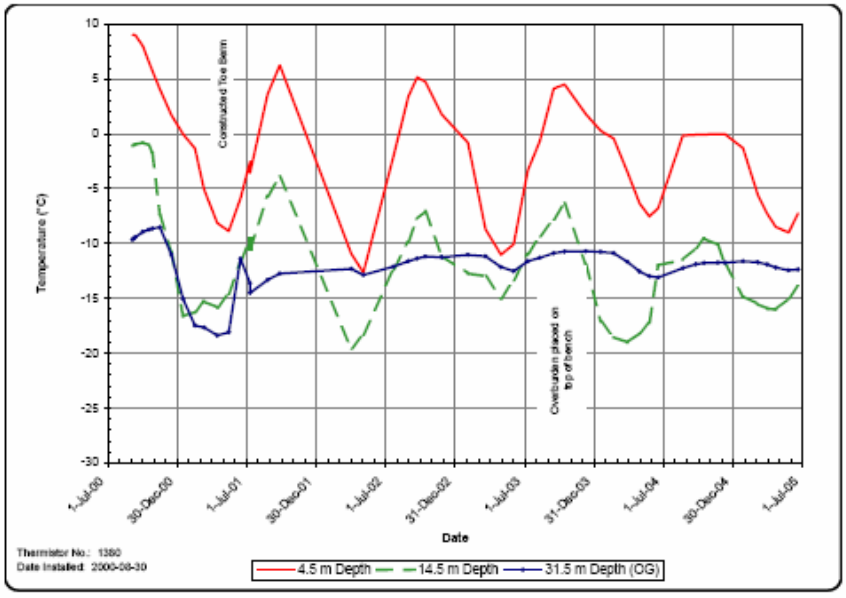
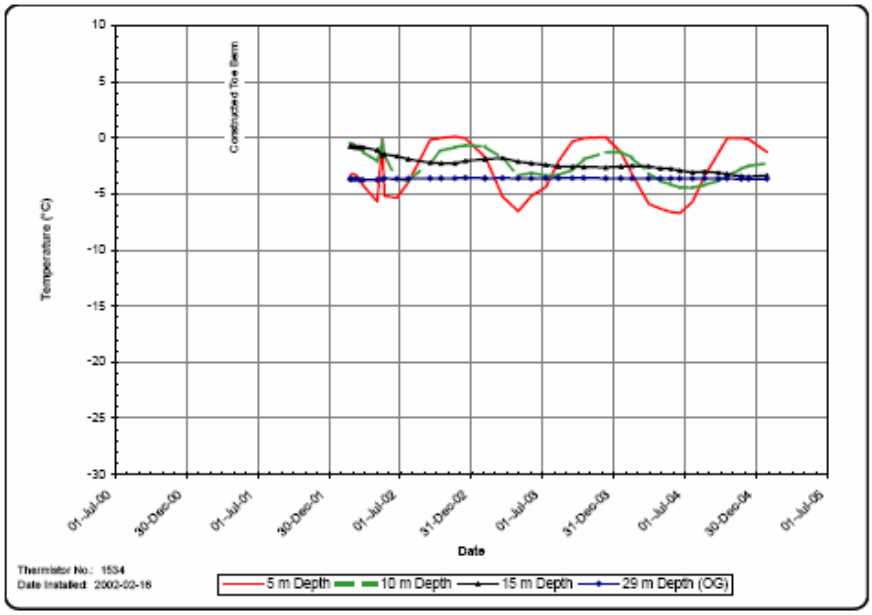


FIGURE 54. GROUND TEMPERATURE HISTORY SITE 5 (CENTRE OF TOP BENCH)
AN EXAMPLE OF A SITE TOWARDS THE CENTRE OF THE WRSA



Examinations of the **ground temperature histories** from the ground temperature cables installed in the Panda/Koala/Beartooth WRSA indicate the following:

- The amplitude of temperature fluctuations at a specific depth is decreasing with time.

- The magnitude of the effectiveness of convective cooling has been related to a parameter termed the "thermal offset" by Goering, (2003). The thermal offset is the difference in winter temperature at the top of the embankment and that at some depth within the embankment. A negative thermal offset indicates that the temperatures at depth in winter are actually colder than those near the surface, which can only be attributed to convective cooling. Sites 2, 4 and 5 show thermal offsets in the order of -5°C over a 10 m depth from 4 m to 14 m. This large offset, where the winter temperatures at 14 m below the surface are 5°C colder than those at 4 m depth, is unprecedented in terms of ground temperature profiles and clearly indicative of formation of strong convection cells.
- The temperatures nearer the surface of the WRSA (depths of approximately 4 m) are getting colder with time and this is an indication that the depth of seasonal thaw is also decreasing with time.
- The construction of the toe berm on the eastern side of the WRSA in the late winter of 2001 reduced the temperature fluctuations during the year at each of the plotted depths and lead to colder temperatures at depth. The decrease in temperature fluctuations may be a result of a "choking off" of some of the convective cooling because of the impermeability of the toe berm. Alternatively, as the pile cools with time, the thermal gradient decreases in winter moderating the cooling effect.
- It was initially estimated that the width of the unfrozen fringe (fringe active layer) could be on the order of 150m in late summer. Examination of the results show that the unfrozen fringe is considerably less than 150 m wide. It is believed that the unfrozen fringe is less than 10 m wide.

6.3.3.4.2. Toe Berm Results

Examinations of the **ground temperature profiles** from the ground temperature cables installed in the Panda and Bearclaw toe berms show the following:

- The toe berms are in a permafrost state at temperatures below regional ground temperature.
- The depth of seasonal thawing (thickness of the active layer) has reduced with time and is now in the order of 3 m.

Examinations of the **ground temperature histories** from the ground temperature cables installed in the Panda and Bearclaw toe berms indicate the following:

- The amplitude of seasonal temperature fluctuations has decreased slightly with time.
- The temperatures in the core and base of the toe berms are below normal permafrost ground temperatures, confirming that the fine-grained fill inside the toe berm is benefiting from convective cooling cells that form each winter in the rock above the fill. There is insufficient thermistor data to evaluate the magnitude of the convective cooling effects. The temperatures at the base of the fill are continuing to decrease with time.

In summary, overall the Panda / Koala / Beartooth WRSA is cooling to temperatures below those of the ground permafrost. This effect is most significant around the sides of the WRSA where the convection currents impact on the temperature. Permafrost is developing as expected through the rock pile.

APPENDIX B
RECLAMATION COST DETAILS

This appendix presents notes, assumptions and supporting calculations for the reclamation activities which are shown in the RECLAIM output in Appendix C.

End of Year 1

Open Pits

- Remove infrastructure (electrical, dewatering) from Portage Pit only
- Construct berms along exposed pit crest east side of Portage pit, 600 m x 4 m3/m = 2400 m3, assume rock comes from dike breaches – cost is only for dozing
- Assisted flooding by pumping, assumes seepage for 2 years & pit is 42% excavated
    - Total volume to be pumped into Portage, 15,640,000 m3, over 4.0 years
- Breach dike between Portage and Goose pits,
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Breach dike between Goose pit & Third Portage Lake
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Fish habitat compensation (finger dikes and mounts) are assumed to have been constructed during operations.

Tailings

- Place rock cover, total area is 400 x 200 m = 80,000 m2 assuming exposed beach and portion of sub-aqueous tailings are to be covered, assuming cover thickness is 4 m then volume is 320,000 m3

Waste Rock

Portage rock pile is composed of surplus IV + IF PAG rock plus NPAG rock. Volume of surplus IV + IF is 8,076,983 m3. Assume pile is 45 m high, area of PAG rock is 264,196 m2. Assume PAG rock is piled against 2 of 4 sides; net uncovered area of PAG rock is 204,072 m2.

- Dose down slope slopes to 2:1 over 668 m crest length, reslope volume is 169,088 m3
- Excavate UM rock and place cover over 264,196 m2, assuming cover thickness is 4 m, volume is 816,288 m3

Buildings & Equipment

- Tabulation of building footprint areas for cover of foundations and volume (for demolition effort and landfill volume) is presented in RECLAIM output – Buildings page

Mobilization

- Crews mobilized from Baker lake
- Assume use of existing camp
- Equipment mobilized by barge

Monitoring & Maintenance

- Monitoring is provided for 8 years after closure, assumed to be conducted simultaneously with pit flooding and all structures frozen by this time – no further monitoring required.

Long-term Water Management & Site Maintenance

- Not required

End of Year 5

Open Pits

- Remove infrastructure (electrical, dewatering)
- Construct berms along exposed pit crest east side of Portage pit, 600 m x 4 m3/m = 2400 m3, assume rock comes from dike breaches – cost is only for dozing
- Assisted flooding by pumping, assumes seepage into Goose and Portage pits up to year 8, but no assisted flooding
    - Total volume to be pumped into Portage, 33,040,000 m3, over 8.4 years
    - Total volume to be pumped into Goose, 13,212,000 m3, over 6.4 years
    - Total volume to be pumped into Vault, 13,705,000 m3, over 3.5 years
- Breach dike between Goose pit & Third Portage Lake
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Breach Vault pit dike
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Fish habitat compensation (finger dikes and mounts) are assumed to have been constructed during operations.

Tailings

- Place rock cover, total area is 900 x 500 m = 450,000 m2 assuming exposed beach and portion of sub-aqueous tailings are to be covered, assuming cover thickness is 4 m then volume is 1,800,000 m3

Waste Rock

Portage rock pile has reached 96% of maximum volume, assume reclamation effort is same as at 100% capacity. Portage rock pile is composed of surplus IV + IF PAG rock plus NPAG rock. Volume of surplus IV + IF is 13,256,206 m3. Assume pile is 60 m high, area of PAG rock is 349,062 m2. Assume PAG rock is piled against 2 of 4 sides; net uncovered area of PAG rock is 264,822 m2.

- Dose down slope slopes to 2:1 over 668 m crest length, reslope volume is 315,900 m3
- Excavate UM rock and place cover over 264,196 m2, assuming cover thickness is 4 m, volume is 1,059,288 m3

Buildings & Equipment

- Tabulation of building footprint areas for cover of foundations and volume (for demolition effort and landfill volume) is presented in RECLAIM output – Buildings page

Mobilization

- Crews mobilized from Baker lake
- Assume use of existing camp
- Equipment mobilized by barge

Monitoring & Maintenance

- Monitoring is provided for 8 years after closure, assumed to be conducted simultaneously with pit flooding and all structures frozen by this time – no further monitoring required.

Long-term Water Management & Site Maintenance

- Not required

End of Mine Life

Open Pits

- Remove infrastructure (electrical, dewatering)
- Construct berms along exposed pit crest east side of Portage pit, 600 m x 4 m3/m = 2400 m3, assume rock comes from dike breaches – cost is only for dozing
- Assisted flooding by pumping, assumes seepage into Goose and Portage pits up to year 8, but no assisted flooding
    - Total volume to be pumped into Portage, 31,580,000 m3, over 8.0 years
    - Total volume to be pumped into Goose, 11,808,000 m3, over 5.7 years
    - Total volume to be pumped into Vault, 28,572,000 m3, over 7.2 years
- Breach dike between Goose pit & Third Portage Lake
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Breach Vault pit dike
    - Excavate till 6 m deep (2m freeboard, 3 m depth, 1 m over excavate for rock cover) 200 m x 180 m3/m = 36,000 m3
    - Excavate rock, 5 m deep (2 m freeboard, 3 m depth) – U/S & D/S rockfill, 282 m3/m x 200 m = 56,400 m3
- Fish habitat compensation (finger dikes and mounts) are assumed to have been constructed during operations.

Tailings

- Place rock cover, total area is 1,400,000 m2, assuming cover thickness is 4 m then volume is 7,978,142 m3

Waste Rock

Portage rock pile is composed of surplus IV + IF PAG rock plus NPAG rock. Volume of surplus IV + IF is 13,256,206 m3. Assume pile is 60 m high, area of PAG rock is 349,062 m2. Assume PAG rock is piled against 2 of 4 sides; net uncovered area of PAG rock is 264,822 m2.

- Dose down slope slopes to 2:1 over 668 m crest length, reslope volume is 315,900 m3
- Excavate UM rock and place cover over 264,196 m2, assuming cover thickness is 4 m, volume is 1,059,288 m3

Buildings & Equipment

- Tabulation of building footprint areas for cover of foundations and volume (for demolition effort and landfill volume) is presented in RECLAIM output – Buildings page

Mobilization

- Crews mobilized from Baker lake
- Assume use of existing camp
- Equipment mobilized by barge

Monitoring & Maintenance

- Monitoring is provided for 8 years after closure, assumed to be conducted simultaneously with pit flooding and all structures frozen by this time – no further monitoring required.

Long-term Water Management & Site Maintenance

- Not required

Portage					Tonnes	SG	Volume
orig lake volume	4,500,000	m3		Int Volc	15936	2.89	5,514,187
				U Mafic	24141	2.91	8,295,876
				Iron F	30168	3.44	8,769,767
vol of rock removed	30,000,421	m3		Quartz	934	2.7	345,926
total volume to fill	34,500,421	m3		Till	6119	1.9	3,220,526
				Ore	11177	2.9	3,854,138
runoff & seepage	730,000	m3/y					30,000,421
annual pumping rate	3,224,000	m3/y					
	3,954,000	total inflow rate					
	8.7	years to flood					
assume no pumping years	5, 6, 7 & 8,		seepage	2	yrs		
			volume	1,460,000	m3		
		end of operations	unflooded volume	33,040,421	m3		
			years to flood	8.4			

Goose Island					Tonnes	SG	Volume
orig lake volume	1,467,000	m3					
rock removed		tonnes		Int Volc	9490	2.89	3,283,737
ave. SG				U Mafic	17769	2.91	6,106,186
vol of rock removed	13,851,826	m3		Iron F	3956	3.44	1,150,000
total volume to fill	15,318,826	m3		Quartz	2523	2.7	934,444
				Till	3045	1.9	1,602,632
runoff & seepage	702,000	m3/y		Ore	2247	2.9	774,828
annual pumping rate	1,356,000	m3/y					13,851,826
	2,058,000	total inflow rate					
	7.4	years to flood					
assume no pumping years	4, 5, 6, 7 & 8,		seepage	3	yrs		
			volume	2,106,000	m3		
		end of operations	unflooded volume	13,212,826	m3		
			years to flood	6.4			

Vault Pit					Tonnes	SG	Volume
orig lake volume	4,500,000	m3					
rock removed		tonnes		Int Volc	68206	2.75	24,802,182
ave. SG				U Mafic		2.91	-
vol of rock removed	10,664,938	m3		Iron F		3.44	-
total volume to fill	15,164,938	m3		Quartz		2.7	-
				Till		1.9	-
runoff & seepage	730,000	m3/y		Ore		2.9	-
annual pumping rate	3,224,000	m3/y					24,802,182
	3,954,000	total inflow rate					
	3.8	years to flood					
					% of ult. Vol excavated		43%
assume no pumping years	8,		seepage	2	yrs		
			volume	1,460,000	m3		
		end of operations	unflooded volume	13,704,938	m3		
			years to flood	3.5			

APPENDIX C

RECLAMATION COST ESTIMATE

SUMMARY OF COSTS

YEAR 1

COMPONENT TYPE	COMPONENT NAME		TOTAL COST	Land Liability	Water Liability
OPEN PIT	0		$1,265,095	$2,081	$1,263,014
UNDERGROUND MINE	0		$0.00	$0	$0
TAILINGS	0		$1,175,645.36	$293,911	$881,734
ROCK PILE	0		$3,145,553.04	$0	$3,145,553
BUILDINGS AND EQUIPMENT	0		$6,057,561.54	$5,937,562	$120,000
CHEMICALS AND SOIL MANAGEMENT	0		$337,682.00	$114,620	$223,062
WATER MANAGEMENT	0		$0.00	$0	$0
POST-CLOSURE SITE MAINTENANCE			$0.00	$0	$0
SUBTOTAL			**$11,981,537**	**$6,348,174**	**$5,633,363**
		Percentages		53.0	47.0
MOBILIZATION/DEMOBILIZATION	0		$400,980	$212,451	$188,529
MONITORING AND MAINTENANCE	0		$840,000	$445,057	$394,943
Market Factor Price Adjustment	0	%	$0	$0	$0
PROJECT MANAGEMENT	5	%	$599,077	$317,409	$281,668
ENGINEERING	5	%	$599,077	$317,409	$281,668
CONTINGENCY	15	%	$1,797,231	$952,226	$845,004
GRAND TOTAL - CAPITAL COSTS			**$16,217,901**	**$8,592,725**	**$7,625,176**

1 **Open Pit Name:** **Pit # *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 at Portage east side	m3	2400	drl	0.867	$2,081	100%	$2,081	$0
B	Block roads	m3		#N/A					
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE SLOPES			#N/A	0	$0		$0	$0
	excavate 2 breaches in dike	m3		#N/A	0	$0		$0	$0
	break concrete guides & wall	m3		#N/A	0	$0		$0	$0
.	construct fish habitat	m3		#N/A	0	$0		$0	$0
.		m3		#N/A	0	$0		$0	$0
C	breach Portage dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Portage dike,rock excavation	m3	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	breach Goose dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Goose dike, rock excavation	m	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	breach Vault dike, till excavation	m3		SB2L	4.0596	$0	0%	$0	$0
	breach Vault dike, rock excavation	m3		SB2L	4.0596	$0	0%	$0	$0
.	construct fish habitat	m3		SB2L	4.0596	$0		$0	$0
		kWh		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A					
.	OBJECTIVE: COVER/CONTOUR SLOPES			#N/A	0	$0		$0	$0
.	Fill, mat'l A	m3		#N/A	0	$0		$0	$0
.	, 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
E	Other			#N/A	0				
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	0	$0		$0	$0
	, mat'l B	m3		#N/A	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
F				#N/A					
.	OBJECTIVE: FLOOD PIT			#N/A	0	$0		$0	$0
.	pump water into Portage pit	m3	15640000	#N/A	0.02	$312,800	0%	$0	$312,800
	pump water into Goose pit	m3	0	#N/A	0.02	$0	0%	$0	$0
.	pump water into Vault pit	m3	0	#N/A	0.02	$0	0%	$0	$0
H	annual mob/demob to site, only for years after main reclamation complete	yrs	4	#N/A	50000	$200,000	0%	$0	$200,000
	siphon installation/operation	each		#N/A	0	$0		$0	$0
	remove pipes,wires etc	each		#N/A	0			$0	$0
	make milk of lime, meter into pit	tonne		#N/A	0	$0		$0	$0

1 **Open Pit Name:** _____ **Pit #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	tonne		ilmh	504.9	$0		$0	$0
	km		mherh	8.5884	$0		$0	$0
OBJECTIVE: BACKFILL PIT			#N/A	0	$0		$0	$0
Fill, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Vegetate	ha		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$1,265,095 Total Pits	0% Percent Land	$2,081 Total Land	$1,263,014 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 raises at A154/A418	m3		#N/A	0	$0		$0	$0
soil cover on raise cap	m3		#N/A	0	$0		$0	$0
. Cap raises at A 21	m3		#N/A	0	$0		$0	$0
soil cover on raise cap			#N/A	0	$0		$0	$0
. Backfill adit A154	m3		#N/A	0	$0		$0	$0
Contour portal area, A154	m3		#N/A	0	$0		$0	$0
. Backfill adit, A21	m3		#N/A	0	$0		$0	$0
Contour portal area, A21			#N/A	0	$0		$0	$0
. concrete bulkhead, pit portal, A154	allow		#N/A	75000	$0		$0	$0
. concrete bulkhead, pit portal, A21	allow		#N/A	75000	$0		$0	$0
. Backfill open stopes	m3		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
B OBJECTIVE: STABILIZE GROUND SURFACE			#N/A					
. Backfill mine	m3		#N/A	0	$0		$0	$0
. Collapse crown pillar	m3		#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 dewatering (see "MONITORING/MAINTENANCE" c			#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
C OBJECTIVE: FLOOD MINE			#N/A					
. 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			#N/A					
. remove hazardous materials, LABOUR	each		#N/A	0	$0		$0	$0
. remove/decontam. Equipment, electrical	each		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
E SPECIALIZED ITEMS			#N/A					
.			#N/A	0	$0		$0	$0
Subtotal					$0	#DIV/0!	$0	$0
					Total U/G	Percent Land	Total Land	Total Water

1 lings 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				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE EMBANKMENT			#N/A	0	$0		$0	$0
.	breach east dam	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
C	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: COVER TAILINGS			#N/A	0	$0		$0	$0
	cover material A	m3	320000	#N/A	3.67	$1,175,645	25%	$293,911	$881,734
.	cover material B	m3		#N/A	0.5	$0		$0	$0
.	cover material C	m3		#N/A	3.6	$0		$0	$0
D		m3		#N/A					
.		m3		#N/A	8.25	$0		$0	$0
.	Soil cover, till	m3		#N/A	4.46	$0		$0	$0
.	Cover rock from dump	m3		#N/A	3.6	$0		$0	$0
.	Cover rock from roads	m3		#N/A		$0		$0	$0
E	Cover rock from new quarry	m3		#N/A					
.	Remove & treat supernatant	m3		#N/A	0.25	$0		$0	$0
.	OBJECTIVE: FLOOD TAILINGS			#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
F	Raise crest	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
.	Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
.	Vegetate	ha		#N/A	0	$0		$0	$0
G	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: UPGRADE SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	10.6	$0		$0	$0
H	, mat'l B	m3		#N/A	0	$0		$0	$0
.	Concrete	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	5.65	$0		$0	$0
.	geotextile over ice rich soil	m2		#N/A	10	$0		$0	$0
I				#N/A	0	$0		$0	$0

1 lings Impoundment Name: Impoundment # *1*

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
OBJECTIVE: STABILIZE DECANT SYSTEM			#N/A	0	$0		$0	$0
Remove	m3		#N/A	0	$0		$0	$0
Plug/backfill	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: REMOVE TAILINGS DISCHARGE			#N/A	0	$0		$0	$0
Cyclones	m3		#N/A	0	$0		$0	$0
Pipe	m		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$1,175,645	0.25	$293,911	$881,734
					Total Tailings	Percent Land	Total Land	Total Water

1 **Rock Pile Name:** _____ **Rock Pile #:** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: STABILIZE SLOPES								
	Flatten slopes with dozer, Portage	m3	169088	drl	0.867	$146,599	0%	$0	$146,599
.	Flatten slopes with dozer, Vault	m3	0	drl	0.867	$0	100%	$0	$0
.	Flatten slopes with dozer,	m3		#N/A	0	$0.00		$0	$0
.	Toe buttress, drain mat'l	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l A	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l B	m3		#N/A	0	$0.00		$0	$0
.	Other			#N/A	0	$0.00		$0	$0
B									
.	OBJECTIVE: COVER DUMP			#N/A	0	$0.00		$0	$0
.	till	m3		#N/A	0	$0.00		$0	$0
.	UM rock over dump	m3	816288	#N/A	3.67	$2,998,954	0%	$0	$2,998,954
.	till on caribou ramps	m3		#N/A	0	$0.00		$0	$0
.	rock cover from roads, etc.	m3		#N/A	0	$0.00		$0	$0
C	rock cover from new quarry	m3							
.	rock cover on 2.5:1 slopes, incr. cost	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg.	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg., south dump	m3		#N/A	0	$0.00		$0	$0
.	OBJECTIVE: UNDERWATER DISPOSAL			#N/A	0	$0.00		$0	$0
D	Move material	m3		#N/A	0				
	excavate LGO-OF								
.	Add lime	m3		#N/A	0	$0.00		$0	$0
E	Add crushed limestone	m3		#N/A	0				
.	Other			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
.	OBJECTIVE: COLLECT AND TREAT			#N/A	0	$0.00		$0	$0
.	See "ONGOING TREATMENT" costing component			#N/A	0	$0.00		$0	$0
F									
	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0.00		$0	$0
	Earthworks, mat'l A	m3		#N/A	0	$0.00		$0	$0
	, mat'l B	m3		#N/A	0	$0.00		$0	$0
	Vegetate, till pile	ha		#N/A	0	$0.00		$0	$0
	Other			#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	SPECIALIZED ITEMS			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	Subtotal					$3,145,553	0.0%	$0	$3,145,553
						Total for Rock Pile	Percent Land	Total Land	Total Water

1 Building / Equip Name: ____ Bldg / Equip #: *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: DISPOSE MOBILE EQUIPMENT								
	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each	20	#N/A	1000.00	$20,000	0%	$0	$20,000
.	Other	each		#N/A	0.00	$0		$0	$0
B	OBJECTIVE: DISPOSE STATIONARY EQUIPMENT			#N/A					
.	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each		#N/A	0.00	$0		$0	$0
.	Other	each		#N/A	0.00	$0		$0	$0
C	OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMEI			#N/A					
.	Decontaminate crushing plant	each		#N/A	0.00	$0		$0	$0
.	Decontaminate tanks & plumb.	each		#N/A	0.00	$0		$0	$0
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
D	OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT			#N/A					
.	Decontaminate tanks & plumb.	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
E	OBJECTIVE: DECONTAMINATE BUILDINGS & TANKS			#N/A					
.	site wide allowance	each		#N/A	0.00	$0		$0	$0
.	clean explosives facility	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
				#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
F	OBJECTIVE: MOTHBALL BUILDINGS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other	m2		#N/A	0.00	$0		$0	
G	OBJECTIVE: REMOVE BUILDINGS								
.									
	guard house	m3	225	BRS1L	35.90	$8,078	100%	$8,078	$0
	mill building	m3	64,400	BRS1H	53.86	$3,468,326	100%	$3,468,326	$0
	primary crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	pebble crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	conveyors	m3	1,920	BRS1L	35.90	$68,936	100%	$68,936	$0
	powerhouse	m3	5,460	BRS1L	35.90	$196,036	100%	$196,036	$0
	camp	m3	6,050	BRS1L	35.90	$217,219	100%	$217,219	$0
	kitchen	m3	1,200	BRS1L	35.90	$43,085	100%	$43,085	$0
.	reception	m3	400	BRS1L	35.90	$14,362	100%	$14,362	$0
.	service shop	m3	13,200	BRS1L	35.90	$473,933	100%	$473,933	$0
.	utilidor/walkways	m3	1,643	BRS1L	35.90	$58,972	100%	$58,972	$0
.	assay lab	m3	968	BRS1L	35.90	$34,755	100%	$34,755	$0
.	cold storage	m3	3,888	BRS1L	35.90	$139,595	100%	$139,595	$0
.		m3	10,800	BRS1L	35.90	$387,763	100%	$387,763	$0
.	batch plant	m3	3,150	BRS1L	35.90	$113,098	100%	$113,098	$0

1 **Building / Equip Name: ____ Bldg / Equip #: *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
.	fuel tank	m3	10,598	BRS1L	35.90	$380,493	100%	$380,493	$0
H	OBJECTIVE: BREAK BASEMENT SLABS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
I	OBJECTIVE: REMOVE BURIED TANKS			#N/A					
.	Tank 1, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Tank 2, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
J	OBJECTIVE: LANDFILL FOR DEMOLITION WASTE			#N/A					
.	Place rock cover	m3	6327	sb1l	3.26	$20,651	100%	$20,651	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Landfill disposal fee	tonne		#N/A	0.00	$0		$0	$0
K	OBJECTIVE: GRADE AND CONTOUR			#N/A					
.	Grade mill area	m2		#N/A	0.00	$0		$0	$0
.	Place soil/rock cover over building footpr	m3	39550	sb1l	3.26	$129,091	100%	$129,091	$0
.	Rip rap on ditches	m3		#N/A	0.00	$0		$0	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
L	OBJECTIVE: RECLAIM ROADS			#N/A					
		ha		#N/A	0.00	$0		$0	$0
		ha		#N/A	0.00	$0		$0	$0
	Haul roads	km	10	scfyl	3595.50	$35,955	100%	$35,955	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, PKC & dumps lease	ha		#N/A	0.00	$0		$0	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
	Service roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
.	Haul roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.	Service roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.				#N/A	0.00	$0		$0	$0
K	SPECIALIZED ITEMS			#N/A					
	RECLAIM AIRSTRIP	km	1.4	scfyl	3595.50	$5,034	100%	$5,034	$0
	YELLOWKNIFE LANDFILL DISPOSAL FEE			#N/A	0.00	$0		$0	$0
				#N/A	0.00				
				#N/A	0.00				
.				#N/A	0.00	$0		$0	$0
	Subtotal					$6,057,562	98.0%	$5,937,562	$120,000
						Total Buildings	Percent Land	Total Land	Total Water

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

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	# units	width	length	# floors	footprint area		volume	
building volumes for demolition								
guard house	1	15	15	1	225		225	m3
mill building	1	112	115	5	12880		64,400	m3
primary crusher	1	12	22	5	264		1,320	m3
pebble crusher	1	12	22	5	264		1,320	m3
conveyors	1	4	480	1	1920		1,920	m3
powerhouse	1	35	52	3	1820		5,460	
camp	11	10	55	1	6050		6,050	m3
kitchen	1	20	60	1	1200		1,200	m3
reception	1	20	20	1	400		400	m3
service shop	1	33	100	4	3300		13,200	m3
utilidor/walkways	1	4.5	365	1	1642.5		1,643	m3
assay lab	1	22	22	2	484		968	m3
cold storage	3	18	36	2	1944		3,888	m3
	4	30	45	2	5400		10,800	m3
batch plant	1	21	50	3	1050		3,150	m3
fuel tank	1	30	dia.	15	707		10,598	m3
				area	39550	volume	126,541	
	demolished volume at 25%						31635	
	cover area at 10 m ave depth						3164	
	cover volume at 2 m cover						6327	m3

1 Chemicals and Soil Contamination: *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	km		mherh				$0	
.	allowance	pallet	5	LCRH	2366.4	$11,832	0%	$0	$11,832
B	PCB, hauling	litre		#N/A	0	$0		$0	$0
.	PCB, disposal	litre		#N/A	0	$0		$0	$0
C	FUEL			#N/A	0	$0		$0	$0
.	Type 1, 200 tonnes	km		#N/A	0	$0		$0	$0
.	Type 2	kg		#N/A	0	$0		$0	$0
.	Type 3	kg		#N/A	0	$0		$0	$0
D	WASTE OIL			#N/A	0				
.	Oils/lubricants - burn on-site	litre	10000	OBH	0.561	$5,610	0%	$0	$5,610
.	Oils/lubricants - ship off-site	litre		#N/A	0	$0		$0	$0
.	removal glycol	litre	1,000	#N/A	0	$0		$0	$0
E	remove batteries	kg		#N/A	0	$0		$0	$0
.	remove paints	litre		#N/A	0	$0		$0	$0
.	remove solvents	litre		#N/A	0	$0		$0	$0
.	Oils/lubricants - disposal fee	litre		#N/A	0	$0		$0	$0
.	PROCESS OR TREATMENT CHEMICALS			#N/A	0				
F	Removal of other chemicals	allow	0.5	#N/A	150000	$75,000	0%	$0	$75,000
	Type 2	kg		#N/A	0	$0		$0	$0
	Type 3	kg		#N/A	0	$0		$0	$0
	Type 4	kg		#N/A	0	$0		$0	$0
	EXPLOSIVES	kg	10000	ERH	2.244	$22,440	50%	$11,220	$11,220
		allow		#N/A	0	$0		$0	$0
	CONTAMINATED SOILS			#N/A	0				
.	Type 1, light fuel	m3	250	csrh	122.4	$30,600	50%	$15,300	$15,300
G	Type 2, heavy fuel and oil	m3	500	csrh	122.4	$61,200	50%	$30,600	$30,600
.	Type 3, metals	m3		#N/A	100	$0		$0	$0
.	Haz. Mat. testing & assessment			#N/A					
.	Technician and analyses	each	1	#N/A	20000	$20,000	50%	$10,000	$10,000
H	Drilling	each	1	#N/A	75000	$75,000	50%	$37,500	$37,500
.	Reporting		1	#N/A	20000	$20,000	50%	$10,000	$10,000
.	Other			#N/A	0	$0		$0	$0
.	OTHER			#N/A					
.	remove nuclear densometers from mill	each	4	#N/A	4000	$16,000		$0	$16,000
	Subtotal					$337,682	33.9%	$114,620	$223,062
						Total Chemical	Percent Land	Total Land	Total Water

1 /ater Management Project: Project # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	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
	Other			#N/A	0	$0		$0	$0
B	OBJECTIVE: UPGRADE SPILLWAY			#N/A					
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
C	OBJECTIVE: STABILIZE SEDIMENT CONTAINMENT POND			#N/A					
	Place soil cover	m3		#N/A	0	$0		$0	$0
	Place geotextile	m2		#N/A	0	$0		$0	$0
	Vegetate	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	OBJECTIVE: BREACH EMBANKMENT			#N/A					
	Remove Fill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
E	OBJECTIVE: COLLECTION PONDS			#N/A					
	Breach dams	m3		#N/A	2.83	$0		$0	$0
	place geotextile,	m2		#N/A	10	$0		$0	$0
	place rock over geotextile	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
F	OBJECTIVE: BREACH DITCHES			#N/A					
	Excavate	m3		#N/A	0	$0		$0	$0
	Backfill/recontour	m3		#N/A	0	$0		$0	$0
	Vegetate	ha		#N/A	0	$0		$0	
	Other			#N/A	0	$0		$0	$0
G	OBJECTIVE: REMOVE PIPELINES			#N/A					
	Remove pipes	m		#N/A	0	$0		$0	$0
	Concrete plug deep pipes	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
H	OBJECTIVE:			#N/A					
	Excavate/construct spillway	m3		#N/A	4.83	$0		$0	$0
	Excavate & backfill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
I	OBJECTIVE: COLLECT DRAINAGE FOR TREATMENT			#N/A					
	Excavate collection ditches	m3		#N/A	0	$0		$0	$0
	Rip rap ditches	m3		#N/A	0	$0		$0	$0
	Pipes	m		#N/A	0	$0		$0	$0
	Pumps	each		#N/A	0	$0		$0	$0
	Collect'n pond, exc. mat'l A	m3		#N/A	0	$0		$0	$0
	, exc. mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, fill mat'l A	m3		#N/A	0	$0		$0	$0

1 **/ater Management Project:** **Project #** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	, fill mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, liner	m2		#N/A	0	$0		$0	$0
J	OBJECTIVE: TREAT DRAINAGE (see "ONGOINC			#N/A					
	Build treatment plant	lump sum		#N/A	0	$0		$0	$0
				#N/A	0	$0		$0	$0
	Subtotal					$0	#DIV/0!	$0	$0
						Total Water	Percent Land	Total Land	Total Water

1 **Mobilization Name:** **Mob # *1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A MOBILIZE HEAVY EQUIPMENT					
Equipment to regional centre					
. allowance, 2 barge trips (in and out) to Baker La		2	#N/A	100000	$200,000
. allowance, mob from Baker Lake to mine	km	2	#N/A	25000	$50,000
. Dozers	km		#N/A	0	$0
. Demolition shears	km		#N/A	0	$0
Equipment, regional centre to site			#N/A		
. Excavators - 2	km		#N/A	0.00	$0
. Dump trucks - 15	km		#N/A	0.00	$0
. Dozers - 4	km		#N/A	0.00	$0
Demolition shears - 2			#N/A	0.00	$0
Front end loader 2			#N/A	0.00	$0
cranes - 2			#N/A	0.00	$0
service vehicles -10			#N/A	0.00	$0
.	km		#N/A		
B MOBILIZE CAMP			#N/A		
.	allowance		#N/A		$0
C MOBILIZE WORKERS			#N/A		
. air charters			#N/A	45	$0
D MOBILIZE MISC. SUPPLIES			#N/A		
. Fuel	litre		#N/A	0.78	$0
. Minor tools and equipment	owance	1	#N/A	50000	$50,000
. Truck tires	owance		#N/A	0	$0
E MOBILIZE & HOUSE WORKERS	person days		#N/A		
. 11200 man-days	month	75	accml	1346.4	$100,980
. WINTER ROAD			#N/A		
. Full winter use	km		#N/A	0	$0
. Limited winter use	km		#N/A	0	$0
.			#N/A	0	$0
F BONDING lump sum			#N/A		
.			#N/A		$0
G TAXES lump sum					
.			#N/A		$0
H INSURANCE lump sum					
.			#N/A		$0
Subtotal					$400,980
					Total Mob.

Equipment Mobilization	# of machines	loads/machine	round trip km	total road mileage
excavator	2	3	800	4800
dump trucks	15	10	800	120000
dozers	4	5	800	16000
demolition shears	2	6	800	9600
front end loader	2	3	800	4800
cranes	2	1	800	1600
service vehicles	10	2	800	16000

1 Monitoring & Maintenance Mon / Mtce # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A	OBJECTIVE: POST-CLOSURE INSPECTIONS					
	Annual geotechnical insp.	each	8	#N/A	$10,000	$80,000
.	Survey inspection	each		#N/A	$0	$0
.	Water sampling	yrs	8	#N/A	$75,000	$600,000
.	Reporting	yrs	8	#N/A	$20,000	$160,000
.	Other			#N/A	$0	$0
B	OBJECTIVE: INTERIM CARE & MAINTENANCE			#N/A		
.	annual C&M	yrs		#N/A	$0	$0
.		month		#N/A		$0
.		month		#N/A	$0	$0
.		each		#N/A	$0	$0
.		allowance		#N/A		
				#N/A		$0
	Subtotal					$840,000

Total Mon./Maint.

1 Post-Closure Site Maintenance

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	WATER TREATMENT								
	Total annual cost, unit cost from Ongoing Water Treatment				0	$0		$0	$0
B	Cover Maintenance								
	Repair erosion, remove trees	ha		#N/A	0	$0		$0	$0
C	Spillway Maintenance			#N/A					
	Repair erosion	m3		#N/A	0	$0		$0	$0
	Clear spillway	each		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	Other			#N/A					
								$0	$0
								$0	
	Subtotal, Annual post-closure costs					$0		$0	$0
	Discount rate for calculation of net present value of post-closu			3.00%				$0	
	Number of years of post-closure activity				0 years			$0	
	Present Value of payment stream					$0	#DIV/0!	$0	$0
						Total Post closure	Percent Land	Total Land	Total Water

SUMMARY OF COSTS

YEAR 5

COMPONENT TYPE	COMPONENT NAME		TOTAL COST	Land Liability	Water Liability
OPEN PIT	0		$2,351,435	$2,081	$2,349,354
UNDERGROUND MINE	0		$0.00	$0	$0
TAILINGS	0		$6,613,005.14	$1,653,251	$4,959,754
ROCK PILE	0		$4,169,929.74	$4,335	$4,165,595
BUILDINGS AND EQUIPMENT	0		$6,057,561.54	$5,937,562	$120,000
CHEMICALS AND SOIL MANAGEMENT	0		$538,754.00	$160,520	$378,234
WATER MANAGEMENT	0		$0.00	$0	$0
POST-CLOSURE SITE MAINTENANCE			$0.00	$0	$0
SUBTOTAL			**$19,730,685**	**$7,757,749**	**$11,972,937**
		Percentages		39.3	60.7
MOBILIZATION/DEMOBILIZATION	0		$601,594	$236,536	$365,058
MONITORING AND MAINTENANCE	0		$840,000	$330,273	$509,727
Market Factor Price Adjustment	0	%	$0	$0	$0
PROJECT MANAGEMENT	5	%	$986,534	$387,887	$598,647
ENGINEERING	5	%	$986,534	$387,887	$598,647
CONTINGENCY	15	%	$2,959,603	$1,163,662	$1,795,941
GRAND TOTAL - CAPITAL COSTS			**$26,104,950**	**$10,263,994**	**$15,840,956**

1 **Open Pit Name:** **Pit # *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 at Portage east side	m3	2400	drl	0.867	$2,081	100%	$2,081	$0
B	Block roads	m3		#N/A					
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE SLOPES			#N/A	0	$0		$0	$0
	excavate 2 breaches in dike	m3		#N/A	0	$0		$0	$0
	break concrete guides & wall	m3		#N/A	0	$0		$0	$0
.	construct fish habitat	m3		#N/A	0	$0		$0	$0
.		m3		#N/A	0	$0		$0	$0
C	breach Portage dike, till excavation	m3		SB2L	4.0596	$0	0%	$0	$0
	breach Portage dike,rock excavation	m3		SB2L	4.0596	$0	0%	$0	$0
.	breach Goose dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Goose dike, rock excavation	m	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	breach Vault dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Vault dike, rock excavation	m3	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	construct fish habitat	m3		SB2L	4.0596	$0		$0	$0
		kWh		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A					
.	OBJECTIVE: COVER/CONTOUR SLOPES			#N/A	0	$0		$0	$0
.	Fill, mat'l A	m3		#N/A	0	$0		$0	$0
.	, 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
E	Other			#N/A	0				
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	0	$0		$0	$0
	, mat'l B	m3		#N/A	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
F				#N/A					
.	OBJECTIVE: FLOOD PIT			#N/A	0	$0		$0	$0
.	pump water into Portage pit	m3	33040000	#N/A	0.02	$660,800	0%	$0	$660,800
	pump water into Goose pit	m3	13212000	#N/A	0.02	$264,240	0%	$0	$264,240
.	pump water into Vault pit	m3	13705000	#N/A	0.02	$274,100	0%	$0	$274,100
H	annual mob/demob to site, only for years after main reclamation complete	yrs	8	#N/A	50000	$400,000	0%	$0	$400,000
	siphon installation/operation	each		#N/A	0	$0		$0	$0
	remove pipes,wires etc	each		#N/A	0			$0	$0
	make milk of lime, meter into pit	tonne		#N/A	0	$0		$0	$0

1 **Open Pit Name:** _____ **Pit #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	tonne		ilmh	504.9	$0		$0	$0
	km		mherh	8.5884	$0		$0	$0
OBJECTIVE: BACKFILL PIT			#N/A	0	$0		$0	$0
Fill, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Vegetate	ha		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$2,351,435 Total Pits	0% Percent Land	$2,081 Total Land	$2,349,354 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 raises at A154/A418	m3		#N/A	0	$0		$0	$0
soil cover on raise cap	m3		#N/A	0	$0		$0	$0
. Cap raises at A 21	m3		#N/A	0	$0		$0	$0
soil cover on raise cap			#N/A	0	$0		$0	$0
. Backfill adit A154	m3		#N/A	0	$0		$0	$0
Contour portal area, A154	m3		#N/A	0	$0		$0	$0
. Backfill adit, A21	m3		#N/A	0	$0		$0	$0
Contour portal area, A21			#N/A	0	$0		$0	$0
. concrete bulkhead, pit portal, A154	allow		#N/A	75000	$0		$0	$0
. concrete bulkhead, pit portal, A21	allow		#N/A	75000	$0		$0	$0
. Backfill open stopes	m3		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
B OBJECTIVE: STABILIZE GROUND SURFACE			#N/A					
. Backfill mine	m3		#N/A	0	$0		$0	$0
. Collapse crown pillar	m3		#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 dewatering (see "MONITORING/MAINTENANCE" c			#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
C OBJECTIVE: FLOOD MINE			#N/A					
. 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			#N/A					
. remove hazardous materials, LABOUR	each		#N/A	0	$0		$0	$0
. remove/decontam. Equipment, electrical	each		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
E SPECIALIZED ITEMS			#N/A					
.			#N/A	0	$0		$0	$0
Subtotal					$0	#DIV/0!	$0	$0
					Total U/G	Percent Land	Total Land	Total Water

1 lings 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				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE EMBANKMENT			#N/A	0	$0		$0	$0
.	breach east dam	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
C	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: COVER TAILINGS			#N/A	0	$0		$0	$0
	cover material A	m3	1800000	#N/A	3.67	$6,613,005	25%	$1,653,251	$4,959,754
.	cover material B	m3		#N/A	0.5	$0		$0	$0
.	cover material C	m3		#N/A	3.6	$0		$0	$0
D		m3		#N/A					
.		m3		#N/A	8.25	$0		$0	$0
.	Soil cover, till	m3		#N/A	4.46	$0		$0	$0
.	Cover rock from dump	m3		#N/A	3.6	$0		$0	$0
.	Cover rock from roads	m3		#N/A		$0		$0	$0
E	Cover rock from new quarry	m3		#N/A					
.	Remove & treat supernatant	m3		#N/A	0.25	$0		$0	$0
.	OBJECTIVE: FLOOD TAILINGS			#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
F	Raise crest	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
.	Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
.	Vegetate	ha		#N/A	0	$0		$0	$0
G	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: UPGRADE SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	10.6	$0		$0	$0
H	, mat'l B	m3		#N/A	0	$0		$0	$0
.	Concrete	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	5.65	$0		$0	$0
.	geotextile over ice rich soil	m2		#N/A	10	$0		$0	$0
I				#N/A	0	$0		$0	$0

1 lings Impoundment Name: Impoundment # *1*

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
OBJECTIVE: STABILIZE DECANT SYSTEM			#N/A	0	$0		$0	$0
Remove	m3		#N/A	0	$0		$0	$0
Plug/backfill	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: REMOVE TAILINGS DISCHARGE			#N/A	0	$0		$0	$0
Cyclones	m3		#N/A	0	$0		$0	$0
Pipe	m		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$6,613,005	0.25	$1,653,251	$4,959,754
					Total Tailings	Percent Land	Total Land	Total Water

1 **Rock Pile Name:** _____ **Rock Pile #:** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: STABILIZE SLOPES								
	Flatten slopes with dozer, Portage	m3	315900	drl	0.867	$273,885	0%	$0	$273,885
.	Flatten slopes with dozer, Vault	m3	5000	drl	0.867	$4,335	100%	$4,335	$0
.	Flatten slopes with dozer,	m3		#N/A	0	$0.00		$0	$0
.	Toe buttress, drain mat'l	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l A	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l B	m3		#N/A	0	$0.00		$0	$0
.	Other			#N/A	0	$0.00		$0	$0
B									
.	OBJECTIVE: COVER DUMP			#N/A	0	$0.00		$0	$0
.	till	m3		#N/A	0	$0.00		$0	$0
.	UM rock over dump	m3	1059288	#N/A	3.67	$3,891,709	0%	$0	$3,891,709
.	till on caribou ramps	m3		#N/A	0	$0.00		$0	$0
.	rock cover from roads, etc.	m3		#N/A	0	$0.00		$0	$0
C	rock cover from new quarry	m3							
.	rock cover on 2.5:1 slopes, incr. cost	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg.	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg., south dump	m3		#N/A	0	$0.00		$0	$0
.	OBJECTIVE: UNDERWATER DISPOSAL			#N/A	0	$0.00		$0	$0
D	Move material	m3		#N/A	0				
	excavate LGO-OF								
.	Add lime	m3		#N/A	0	$0.00		$0	$0
E	Add crushed limestone	m3		#N/A	0				
.	Other			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
.	OBJECTIVE: COLLECT AND TREAT			#N/A	0	$0.00		$0	$0
.	See "ONGOING TREATMENT" costing component			#N/A	0	$0.00		$0	$0
F									
	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0.00		$0	$0
	Earthworks, mat'l A	m3		#N/A	0	$0.00		$0	$0
	, mat'l B	m3		#N/A	0	$0.00		$0	$0
	Vegetate, till pile	ha		#N/A	0	$0.00		$0	$0
	Other			#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	SPECIALIZED ITEMS			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	Subtotal					$4,169,930	0.1%	$4,335	$4,165,595
						Total for Rock Pile	Percent Land	Total Land	Total Water

1 Building / Equip Name: ____ Bldg / Equip #: *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: DISPOSE MOBILE EQUIPMENT								
	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each	20	#N/A	1000.00	$20,000	0%	$0	$20,000
.	Other	each		#N/A	0.00	$0		$0	$0
B	OBJECTIVE: DISPOSE STATIONARY EQUIPMENT			#N/A					
.	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each		#N/A	0.00	$0		$0	$0
.	Other	each		#N/A	0.00	$0		$0	$0
C	OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMEI			#N/A					
.	Decontaminate crushing plant	each		#N/A	0.00	$0		$0	$0
.	Decontaminate tanks & plumb.	each		#N/A	0.00	$0		$0	$0
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
D	OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT			#N/A					
.	Decontaminate tanks & plumb.	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
E	OBJECTIVE: DECONTAMINATE BUILDINGS & TANKS			#N/A					
.	site wide allowance	each		#N/A	0.00	$0		$0	$0
.	clean explosives facility	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
				#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
F	OBJECTIVE: MOTHBALL BUILDINGS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other	m2		#N/A	0.00	$0		$0	
G	OBJECTIVE: REMOVE BUILDINGS								
.									
	guard house	m3	225	BRS1L	35.90	$8,078	100%	$8,078	$0
	mill building	m3	64,400	BRS1H	53.86	$3,468,326	100%	$3,468,326	$0
	primary crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	pebble crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	conveyors	m3	1,920	BRS1L	35.90	$68,936	100%	$68,936	$0
	powerhouse	m3	5,460	BRS1L	35.90	$196,036	100%	$196,036	$0
	camp	m3	6,050	BRS1L	35.90	$217,219	100%	$217,219	$0
	kitchen	m3	1,200	BRS1L	35.90	$43,085	100%	$43,085	$0
.	reception	m3	400	BRS1L	35.90	$14,362	100%	$14,362	$0
.	service shop	m3	13,200	BRS1L	35.90	$473,933	100%	$473,933	$0
.	utilidor/walkways	m3	1,643	BRS1L	35.90	$58,972	100%	$58,972	$0
.	assay lab	m3	968	BRS1L	35.90	$34,755	100%	$34,755	$0
.	cold storage	m3	3,888	BRS1L	35.90	$139,595	100%	$139,595	$0
.		m3	10,800	BRS1L	35.90	$387,763	100%	$387,763	$0
.	batch plant	m3	3,150	BRS1L	35.90	$113,098	100%	$113,098	$0

1 **Building / Equip Name: ____ Bldg / Equip #: *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
.	fuel tank	m3	10,598	BRS1L	35.90	$380,493	100%	$380,493	$0
H	OBJECTIVE: BREAK BASEMENT SLABS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
I	OBJECTIVE: REMOVE BURIED TANKS			#N/A					
.	Tank 1, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Tank 2, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
J	OBJECTIVE: LANDFILL FOR DEMOLITION WASTE			#N/A					
.	Place rock cover	m3	6327	sb1l	3.26	$20,651	100%	$20,651	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Landfill disposal fee	tonne		#N/A	0.00	$0		$0	$0
K	OBJECTIVE: GRADE AND CONTOUR			#N/A					
.	Grade mill area	m2		#N/A	0.00	$0		$0	$0
.	Place soil/rock cover over building footpr	m3	39550	sb1l	3.26	$129,091	100%	$129,091	$0
.	Rip rap on ditches	m3		#N/A	0.00	$0		$0	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
L	OBJECTIVE: RECLAIM ROADS			#N/A					
		ha		#N/A	0.00	$0		$0	$0
		ha		#N/A	0.00	$0		$0	$0
	Haul roads	km	10	scfyl	3595.50	$35,955	100%	$35,955	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, PKC & dumps lease	ha		#N/A	0.00	$0		$0	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
	Service roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
.	Haul roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.	Service roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.				#N/A	0.00	$0		$0	$0
K	SPECIALIZED ITEMS			#N/A					
	RECLAIM AIRSTRIP	km	1.4	scfyl	3595.50	$5,034	100%	$5,034	$0
	YELLOWKNIFE LANDFILL DISPOSAL FEE			#N/A	0.00	$0		$0	$0
				#N/A	0.00				
				#N/A	0.00				
.				#N/A	0.00	$0		$0	$0
	Subtotal					$6,057,562	98.0%	$5,937,562	$120,000
						Total Buildings	Percent Land	Total Land	Total Water

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

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	# units	width	length	# floors	footprint area		volume	
building volumes for demolition								
guard house	1	15	15	1	225		225	m3
mill building	1	112	115	5	12880		64,400	m3
primary crusher	1	12	22	5	264		1,320	m3
pebble crusher	1	12	22	5	264		1,320	m3
conveyors	1	4	480	1	1920		1,920	m3
powerhouse	1	35	52	3	1820		5,460	
camp	11	10	55	1	6050		6,050	m3
kitchen	1	20	60	1	1200		1,200	m3
reception	1	20	20	1	400		400	m3
service shop	1	33	100	4	3300		13,200	m3
utilidor/walkways	1	4.5	365	1	1642.5		1,643	m3
assay lab	1	22	22	2	484		968	m3
cold storage	3	18	36	2	1944		3,888	m3
	4	30	45	2	5400		10,800	m3
batch plant	1	21	50	3	1050		3,150	m3
fuel tank	1	30	dia.	15	707		10,598	m3
				area	39550	volume	126,541	
	demolished volume at 25%						31635	
	cover area at 10 m ave depth						3164	
	cover volume at 2 m cover						6327	m3

1 Chemicals and Soil Contamination: *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	km		mherh				$0	
.	allowance	pallet	10	LCRH	2366.4	$23,664	0%	$0	$23,664
B	PCB, hauling	litre		#N/A	0	$0		$0	$0
.	PCB, disposal	litre		#N/A	0	$0		$0	$0
C	FUEL			#N/A	0	$0		$0	$0
.	Type 1, 200 tonnes	km		#N/A	0	$0		$0	$0
.	Type 2	kg		#N/A	0	$0		$0	$0
.	Type 3	kg		#N/A	0	$0		$0	$0
D	WASTE OIL			#N/A	0				
.	Oils/lubricants - burn on-site	litre	50000	OBH	0.561	$28,050	0%	$0	$28,050
.	Oils/lubricants - ship off-site	litre		#N/A	0	$0		$0	$0
.	removal glycol	litre	1,000	#N/A	0	$0		$0	$0
E	remove batteries	kg		#N/A	0	$0		$0	$0
.	remove paints	litre		#N/A	0	$0		$0	$0
.	remove solvents	litre		#N/A	0	$0		$0	$0
.	Oils/lubricants - disposal fee	litre		#N/A	0	$0		$0	$0
.	PROCESS OR TREATMENT CHEMICALS			#N/A	0				
F	Removal of other chemicals	allow	1	#N/A	150000	$150,000	0%	$0	$150,000
	Type 2	kg		#N/A	0	$0		$0	$0
	Type 3	kg		#N/A	0	$0		$0	$0
	Type 4	kg		#N/A	0	$0		$0	$0
	EXPLOSIVES	kg	10000	ERH	2.244	$22,440	50%	$11,220	$11,220
		allow		#N/A	0	$0		$0	$0
	CONTAMINATED SOILS			#N/A	0				
.	Type 1, light fuel	m3	500	csrh	122.4	$61,200	50%	$30,600	$30,600
G	Type 2, heavy fuel and oil	m3	1000	csrh	122.4	$122,400	50%	$61,200	$61,200
.	Type 3, metals	m3		#N/A	100	$0		$0	$0
.	Haz. Mat. testing & assessment			#N/A					
.	Technician and analyses	each	1	#N/A	20000	$20,000	50%	$10,000	$10,000
H	Drilling	each	1	#N/A	75000	$75,000	50%	$37,500	$37,500
.	Reporting		1	#N/A	20000	$20,000	50%	$10,000	$10,000
.	Other			#N/A	0	$0		$0	$0
.	OTHER			#N/A					
.	remove nuclear densometers from mill	each	4	#N/A	4000	$16,000		$0	$16,000
	Subtotal					$538,754	29.8%	$160,520	$378,234
						Total Chemical	Percent Land	Total Land	Total Water

1 /ater Management Project: Project # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	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
	Other			#N/A	0	$0		$0	$0
B	OBJECTIVE: UPGRADE SPILLWAY			#N/A					
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
C	OBJECTIVE: STABILIZE SEDIMENT CONTAINMENT POND			#N/A					
	Place soil cover	m3		#N/A	0	$0		$0	$0
	Place geotextile	m2		#N/A	0	$0		$0	$0
	Vegetate	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	OBJECTIVE: BREACH EMBANKMENT			#N/A					
	Remove Fill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
E	OBJECTIVE: COLLECTION PONDS			#N/A					
	Breach dams	m3		#N/A	2.83	$0		$0	$0
	place geotextile,	m2		#N/A	10	$0		$0	$0
	place rock over geotextile	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
F	OBJECTIVE: BREACH DITCHES			#N/A					
	Excavate	m3		#N/A	0	$0		$0	$0
	Backfill/recontour	m3		#N/A	0	$0		$0	$0
	Vegetate	ha		#N/A	0	$0		$0	
	Other			#N/A	0	$0		$0	$0
G	OBJECTIVE: REMOVE PIPELINES			#N/A					
	Remove pipes	m		#N/A	0	$0		$0	$0
	Concrete plug deep pipes	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
H	OBJECTIVE:			#N/A					
	Excavate/construct spillway	m3		#N/A	4.83	$0		$0	$0
	Excavate & backfill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
I	OBJECTIVE: COLLECT DRAINAGE FOR TREATMENT			#N/A					
	Excavate collection ditches	m3		#N/A	0	$0		$0	$0
	Rip rap ditches	m3		#N/A	0	$0		$0	$0
	Pipes	m		#N/A	0	$0		$0	$0
	Pumps	each		#N/A	0	$0		$0	$0
	Collect'n pond, exc. mat'l A	m3		#N/A	0	$0		$0	$0
	, exc. mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, fill mat'l A	m3		#N/A	0	$0		$0	$0

1 **/ater Management Project:** **Project # *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	, fill mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, liner	m2		#N/A	0	$0		$0	$0
J	OBJECTIVE: TREAT DRAINAGE (see "ONGOINC			#N/A					
	Build treatment plant	lump sum		#N/A	0	$0		$0	$0
				#N/A	0	$0		$0	$0
	Subtotal					$0	#DIV/0!	$0	$0
						Total Water	Percent Land	Total Land	Total Water

1 **Mobilization Name:** **Mob # *1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A MOBILIZE HEAVY EQUIPMENT					
Equipment to regional centre					
. allowance, 2 barge trips (in and out) to Baker La		2	#N/A	100000	$200,000
. allowance, mob from Baker Lake to mine	km	2	#N/A	25000	$50,000
. Dozers	km		#N/A	0	$0
. Demolition shears	km		#N/A	0	$0
Equipment, regional centre to site			#N/A		
. Excavators - 2	km		#N/A	0.00	$0
. Dump trucks - 15	km		#N/A	0.00	$0
. Dozers - 4	km		#N/A	0.00	$0
Demolition shears - 2			#N/A	0.00	$0
Front end loader 2			#N/A	0.00	$0
cranes - 2			#N/A	0.00	$0
service vehicles -10			#N/A	0.00	$0
.	km		#N/A		
B MOBILIZE CAMP			#N/A		
.	allowance		#N/A		$0
C MOBILIZE WORKERS			#N/A		
. air charters			#N/A	45	$0
D MOBILIZE MISC. SUPPLIES			#N/A		
. Fuel	litre		#N/A	0.78	$0
. Minor tools and equipment	owance	1	#N/A	50000	$50,000
. Truck tires	owance		#N/A	0	$0
E MOBILIZE & HOUSE WORKERS	person days		#N/A		
. 11200 man-days	month	224	accml	1346.4	$301,594
. WINTER ROAD			#N/A		
. Full winter use	km		#N/A	0	$0
. Limited winter use	km		#N/A	0	$0
.			#N/A	0	$0
F BONDING lump sum			#N/A		
.			#N/A		$0
G TAXES lump sum					
.			#N/A		$0
H INSURANCE lump sum					
.			#N/A		$0
Subtotal					$601,594
					Total Mob.

Equipment Mobilization	# of machines	loads/machine	round trip km	total road mileage
excavator	2	3	800	4800
dump trucks	15	10	800	120000
dozers	4	5	800	16000
demolition shears	2	6	800	9600
front end loader	2	3	800	4800
cranes	2	1	800	1600
service vehicles	10	2	800	16000

1 Monitoring & Maintenance Mon / Mtce # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A	OBJECTIVE: POST-CLOSURE INSPECTIONS					
	Annual geotechnical insp.	each	8	#N/A	$10,000	$80,000
.	Survey inspection	each		#N/A	$0	$0
.	Water sampling	yrs	8	#N/A	$75,000	$600,000
.	Reporting	yrs	8	#N/A	$20,000	$160,000
.	Other			#N/A	$0	$0
B	OBJECTIVE: INTERIM CARE & MAINTENANCE			#N/A		
.	annual C&M	yrs		#N/A	$0	$0
.		month		#N/A		$0
.		month		#N/A	$0	$0
.		each		#N/A	$0	$0
.		allowance		#N/A		
				#N/A		$0
	Subtotal					$840,000

Total Mon./Maint.

1 Post-Closure Site Maintenance

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	WATER TREATMENT								
	Total annual cost, unit cost from Ongoing Water Treatment				0	$0		$0	$0
B	Cover Maintenance								
	Repair erosion, remove trees	ha		#N/A	0	$0		$0	$0
C	Spillway Maintenance			#N/A					
	Repair erosion	m3		#N/A	0	$0		$0	$0
	Clear spillway	each		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	Other			#N/A					
								$0	$0
								$0	
	Subtotal, Annual post-closure costs					$0		$0	$0
	Discount rate for calculation of net present value of post-closu			3.00%				$0	
	Number of years of post-closure activity				0 years			$0	
	Present Value of payment stream					$0	#DIV/0!	$0	$0
						Total Post closure	Percent Land	Total Land	Total Water

SUMMARY OF COSTS

YEAR 8

COMPONENT TYPE	COMPONENT NAME		TOTAL COST	Land Liability	Water Liability
OPEN PIT	0		$2,441,495	$2,081	$2,439,414
UNDERGROUND MINE	0		$0.00	$0	$0
TAILINGS	0		$20,573,793.76	$5,143,448	$15,430,345
ROCK PILE	0		$4,174,264.74	$145,613	$4,028,652
BUILDINGS AND EQUIPMENT	0		$6,057,561.54	$5,937,562	$120,000
CHEMICALS AND SOIL MANAGEMENT	0		$538,754.00	$160,520	$378,234
WATER MANAGEMENT	0		$0.00	$0	$0
POST-CLOSURE SITE MAINTENANCE			$0.00	$0	$0
SUBTOTAL			**$33,785,869**	**$11,389,223**	**$22,396,645**
		Percentages		33.7	66.3
MOBILIZATION/DEMOBILIZATION	0		$802,207	$270,424	$531,783
MONITORING AND MAINTENANCE	0		$840,000	$283,164	$556,836
Market Factor Price Adjustment	0	%	$0	$0	$0
PROJECT MANAGEMENT	5	%	$1,689,293	$569,461	$1,119,832
ENGINEERING	5	%	$1,689,293	$569,461	$1,119,832
CONTINGENCY	15	%	$5,067,880	$1,708,384	$3,359,497
GRAND TOTAL - CAPITAL COSTS			**$43,874,543**	**$14,790,118**	**$29,084,426**

1 **Open Pit Name:** **Pit # *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 at Portage east side	m3	2400	drl	0.867	$2,081	100%	$2,081	$0
B	Block roads	m3		#N/A					
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE SLOPES			#N/A	0	$0		$0	$0
	excavate 2 breaches in dike	m3		#N/A	0	$0		$0	$0
	break concrete guides & wall	m3		#N/A	0	$0		$0	$0
.	construct fish habitat	m3		#N/A	0	$0		$0	$0
.		m3		#N/A	0	$0		$0	$0
C	breach Portage dike, till excavation	m3		SB2L	4.0596	$0	0%	$0	$0
	breach Portage dike,rock excavation	m3		SB2L	4.0596	$0	0%	$0	$0
.	breach Goose dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Goose dike, rock excavation	m	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	breach Vault dike, till excavation	m3	36000	SB2L	4.0596	$146,146	0%	$0	$146,146
	breach Vault dike, rock excavation	m3	56400	SB2L	4.0596	$228,961	0%	$0	$228,961
.	construct fish habitat	m3		SB2L	4.0596	$0		$0	$0
		kWh		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A					
.	OBJECTIVE: COVER/CONTOUR SLOPES			#N/A	0	$0		$0	$0
.	Fill, mat'l A	m3		#N/A	0	$0		$0	$0
.	, 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
E	Other			#N/A	0				
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	0	$0		$0	$0
	, mat'l B	m3		#N/A	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
F				#N/A					
.	OBJECTIVE: FLOOD PIT			#N/A	0	$0		$0	$0
.	pump water into Portage pit	m3	31580000	#N/A	0.02	$631,600	0%	$0	$631,600
	pump water into Goose pit	m3	11808000	#N/A	0.02	$236,160	0%	$0	$236,160
.	pump water into Vault pit	m3	28572000	#N/A	0.02	$571,440	0%	$0	$571,440
H	annual mob/demob to site, only for years after main reclamation complete	yrs	5	#N/A	50000	$250,000	0%	$0	$250,000
	siphon installation/operation	each		#N/A	0	$0		$0	$0
	remove pipes,wires etc	each		#N/A	0			$0	$0
	make milk of lime, meter into pit	tonne		#N/A	0	$0		$0	$0

1 **Open Pit Name:** _____ **Pit #** ***1***

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	tonne		ilmh	504.9	$0		$0	$0
	km		mherh	8.5884	$0		$0	$0
OBJECTIVE: BACKFILL PIT			#N/A	0	$0		$0	$0
Fill, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
, mat'l B	m3		#N/A	0	$0		$0	$0
Vegetate	ha		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$2,441,495 Total Pits	0% Percent Land	$2,081 Total Land	$2,439,414 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 raises at A154/A418	m3		#N/A	0	$0		$0	$0
soil cover on raise cap	m3		#N/A	0	$0		$0	$0
. Cap raises at A 21	m3		#N/A	0	$0		$0	$0
soil cover on raise cap			#N/A	0	$0		$0	$0
. Backfill adit A154	m3		#N/A	0	$0		$0	$0
Contour portal area, A154	m3		#N/A	0	$0		$0	$0
. Backfill adit, A21	m3		#N/A	0	$0		$0	$0
Contour portal area, A21			#N/A	0	$0		$0	$0
. concrete bulkhead, pit portal, A154	allow		#N/A	75000	$0		$0	$0
. concrete bulkhead, pit portal, A21	allow		#N/A	75000	$0		$0	$0
. Backfill open stopes	m3		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
B OBJECTIVE: STABILIZE GROUND SURFACE			#N/A					
. Backfill mine	m3		#N/A	0	$0		$0	$0
. Collapse crown pillar	m3		#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 dewatering (see "MONITORING/MAINTENANCE" c			#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
C OBJECTIVE: FLOOD MINE			#N/A					
. 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			#N/A					
. remove hazardous materials, LABOUR	each		#N/A	0	$0		$0	$0
. remove/decontam. Equipment, electrical	each		#N/A	0	$0		$0	$0
. Other			#N/A	0	$0		$0	$0
E SPECIALIZED ITEMS			#N/A					
.			#N/A	0	$0		$0	$0
Subtotal					$0	#DIV/0!	$0	$0
					Total U/G	Percent Land	Total Land	Total Water

1 lings 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				#N/A	0	$0		$0	$0
.	OBJECTIVE: STABILIZE EMBANKMENT			#N/A	0	$0		$0	$0
.	breach east dam	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
C	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: COVER TAILINGS			#N/A	0	$0		$0	$0
	1,400,000 m2 x 4 m thick	m3	5600000	#N/A	3.67	$20,573,794	25%	$5,143,448	$15,430,345
.	cover material B	m3		#N/A	0.5	$0		$0	$0
.	cover material C	m3		#N/A	3.6	$0		$0	$0
D		m3		#N/A					
.		m3		#N/A	8.25	$0		$0	$0
.	Soil cover, till	m3		#N/A	4.46	$0		$0	$0
.	Cover rock from dump	m3		#N/A	3.6	$0		$0	$0
.	Cover rock from roads	m3		#N/A		$0		$0	$0
E	Cover rock from new quarry	m3		#N/A					
.	Remove & treat supernatant	m3		#N/A	0.25	$0		$0	$0
.	OBJECTIVE: FLOOD TAILINGS			#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
F	Raise crest	m3		#N/A	0	$0		$0	$0
.	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0		$0	$0
.	Earthworks, mat'l A	m3		#N/A	0	$0		$0	$0
.	Vegetate	ha		#N/A	0	$0		$0	$0
G	Other			#N/A	0	$0		$0	$0
.				#N/A	0	$0		$0	$0
.	OBJECTIVE: UPGRADE SPILLWAY			#N/A	0	$0		$0	$0
.	Excavate channel, mat'l A	m3		#N/A	10.6	$0		$0	$0
H	, mat'l B	m3		#N/A	0	$0		$0	$0
.	Concrete	m3		#N/A	0	$0		$0	$0
.	Rip rap	m3		#N/A	5.65	$0		$0	$0
.	geotextile over ice rich soil	m2		#N/A	10	$0		$0	$0
I				#N/A	0	$0		$0	$0

1 lings Impoundment Name: Impoundment # *1*

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
OBJECTIVE: STABILIZE DECANT SYSTEM			#N/A	0	$0		$0	$0
Remove	m3		#N/A	0	$0		$0	$0
Plug/backfill	m3		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
OBJECTIVE: REMOVE TAILINGS DISCHARGE			#N/A	0	$0		$0	$0
Cyclones	m3		#N/A	0	$0		$0	$0
Pipe	m		#N/A	0	$0		$0	$0
Other			#N/A	0	$0		$0	$0
			#N/A	0	$0		$0	$0
SPECIALIZED ITEMS			#N/A	0	$0		$0	$0
.			#N/A	0	$0		$0	$0
Subtotal					$20,573,794	0.25	$5,143,448	$15,430,345
					Total Tailings	Percent Land	Total Land	Total Water

1 **Rock Pile Name:** _____ **Rock Pile #:** ***1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: STABILIZE SLOPES								
	Flatten slopes with dozer, Portage	m3	315900	drl	0.867	$273,885	50%	$136,943	$136,943
.	Flatten slopes with dozer, Vault	m3	10000	drl	0.867	$8,670	100%	$8,670	$0
.	Flatten slopes with dozer,	m3		#N/A	0	$0.00		$0	$0
.	Toe buttress, drain mat'l	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l A	m3		#N/A	0	$0.00		$0	$0
.	, fill mat'l B	m3		#N/A	0	$0.00		$0	$0
.	Other			#N/A	0	$0.00		$0	$0
B									
.	OBJECTIVE: COVER DUMP			#N/A	0	$0.00		$0	$0
.	till	m3		#N/A	0	$0.00		$0	$0
.	UM rock over dump	m3	1059288	#N/A	3.67	$3,891,709	0%	$0	$3,891,709
.	till on caribou ramps	m3		#N/A	0	$0.00		$0	$0
.	rock cover from roads, etc.	m3		#N/A	0	$0.00		$0	$0
C	rock cover from new quarry	m3							
.	rock cover on 2.5:1 slopes, incr. cost	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg.	m3		#N/A	0	$0.00		$0	$0
.	till islands for reveg., south dump	m3		#N/A	0	$0.00		$0	$0
.	OBJECTIVE: UNDERWATER DISPOSAL			#N/A	0	$0.00		$0	$0
D	Move material	m3		#N/A	0				
	excavate LGO-OF								
.	Add lime	m3		#N/A	0	$0.00		$0	$0
E	Add crushed limestone	m3		#N/A	0				
.	Other			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
.	OBJECTIVE: COLLECT AND TREAT			#N/A	0	$0.00		$0	$0
.	See "ONGOING TREATMENT" costing component			#N/A	0	$0.00		$0	$0
F									
	OBJECTIVE: DEVELOP WETLAND			#N/A	0	$0.00		$0	$0
	Earthworks, mat'l A	m3		#N/A	0	$0.00		$0	$0
	, mat'l B	m3		#N/A	0	$0.00		$0	$0
	Vegetate, till pile	ha		#N/A	0	$0.00		$0	$0
	Other			#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	SPECIALIZED ITEMS			#N/A	0	$0.00		$0	$0
.				#N/A	0	$0.00		$0	$0
				#N/A	0	$0.00		$0	$0
	Subtotal					$4,174,265	3.5%	$145,613	$4,028,652
						Total for Rock Pile	Percent Land	Total Land	Total Water

1 Building / Equip Name: ____ Bldg / Equip #: *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	OBJECTIVE: DISPOSE MOBILE EQUIPMENT								
	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each	20	#N/A	1000.00	$20,000	0%	$0	$20,000
.	Other	each		#N/A	0.00	$0		$0	$0
B	OBJECTIVE: DISPOSE STATIONARY EQUIPMENT			#N/A					
.	Decontaminate and ship off-site	km		#N/A	0.00	$0		$0	$0
.	Decontaminate, dispose on-site	each		#N/A	0.00	$0		$0	$0
.	Other	each		#N/A	0.00	$0		$0	$0
C	OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMEI			#N/A					
.	Decontaminate crushing plant	each		#N/A	0.00	$0		$0	$0
.	Decontaminate tanks & plumb.	each		#N/A	0.00	$0		$0	$0
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
D	OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT			#N/A					
.	Decontaminate tanks & plumb.	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.	Remove tanks & plumbing	each		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
E	OBJECTIVE: DECONTAMINATE BUILDINGS & TANKS			#N/A					
.	site wide allowance	each		#N/A	0.00	$0		$0	$0
.	clean explosives facility	each	1	#N/A	#######	$50,000	0%	$0	$50,000
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
				#N/A	0.00	$0		$0	$0
.		each		#N/A	0.00	$0		$0	$0
F	OBJECTIVE: MOTHBALL BUILDINGS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other	m2		#N/A	0.00	$0		$0	
G	OBJECTIVE: REMOVE BUILDINGS								
.									
	guard house	m3	225	BRS1L	35.90	$8,078	100%	$8,078	$0
	mill building	m3	64,400	BRS1H	53.86	$3,468,326	100%	$3,468,326	$0
	primary crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	pebble crusher	m3	1,320	BRS1H	53.86	$71,090	100%	$71,090	$0
	conveyors	m3	1,920	BRS1L	35.90	$68,936	100%	$68,936	$0
	powerhouse	m3	5,460	BRS1L	35.90	$196,036	100%	$196,036	$0
	camp	m3	6,050	BRS1L	35.90	$217,219	100%	$217,219	$0
	kitchen	m3	1,200	BRS1L	35.90	$43,085	100%	$43,085	$0
.	reception	m3	400	BRS1L	35.90	$14,362	100%	$14,362	$0
.	service shop	m3	13,200	BRS1L	35.90	$473,933	100%	$473,933	$0
.	utilidor/walkways	m3	1,643	BRS1L	35.90	$58,972	100%	$58,972	$0
.	assay lab	m3	968	BRS1L	35.90	$34,755	100%	$34,755	$0
.	cold storage	m3	3,888	BRS1L	35.90	$139,595	100%	$139,595	$0
.		m3	10,800	BRS1L	35.90	$387,763	100%	$387,763	$0
.	batch plant	m3	3,150	BRS1L	35.90	$113,098	100%	$113,098	$0

1 **Building / Equip Name: ____ Bldg / Equip #: *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
.	fuel tank	m3	10,598	BRS1L	35.90	$380,493	100%	$380,493	$0
H	OBJECTIVE: BREAK BASEMENT SLABS			#N/A					
.	Building 1	m2		#N/A	0.00	$0		$0	$0
.	Building 2	m2		#N/A	0.00	$0		$0	$0
.	Building 3	m2		#N/A	0.00	$0		$0	$0
.	Building 4	m2		#N/A	0.00	$0		$0	$0
.	Building 5	m2		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
I	OBJECTIVE: REMOVE BURIED TANKS			#N/A					
.	Tank 1, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Tank 2, decontaminate	m3		#N/A	0.00	$0		$0	$0
.	, excavate & dispose	m3		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
J	OBJECTIVE: LANDFILL FOR DEMOLITION WASTE			#N/A					
.	Place rock cover	m3	6327	sb1l	3.26	$20,651	100%	$20,651	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Landfill disposal fee	tonne		#N/A	0.00	$0		$0	$0
K	OBJECTIVE: GRADE AND CONTOUR			#N/A					
.	Grade mill area	m2		#N/A	0.00	$0		$0	$0
.	Place soil/rock cover over building footpr	m3	39550	sb1l	3.26	$129,091	100%	$129,091	$0
.	Rip rap on ditches	m3		#N/A	0.00	$0		$0	$0
.	Vegetate	ha		#N/A	0.00	$0		$0	$0
.	Other			#N/A	0.00	$0		$0	$0
L	OBJECTIVE: RECLAIM ROADS			#N/A					
		ha		#N/A	0.00	$0		$0	$0
		ha		#N/A	0.00	$0		$0	$0
	Haul roads	km	10	scfyl	3595.50	$35,955	100%	$35,955	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, PKC & dumps lease	ha		#N/A	0.00	$0		$0	$0
	Service roads,	ha		#N/A	0.00	$0		$0	$0
	Haul roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
	Service roads, infrastructure lease	ha		#N/A	0.00	$0		$0	$0
.	Haul roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.	Service roads, airstrip lease	ha		#N/A	0.00	$0		$0	$0
.				#N/A	0.00	$0		$0	$0
K	SPECIALIZED ITEMS			#N/A					
	RECLAIM AIRSTRIP	km	1.4	scfyl	3595.50	$5,034	100%	$5,034	$0
	YELLOWKNIFE LANDFILL DISPOSAL FEE			#N/A	0.00	$0		$0	$0
				#N/A	0.00				
				#N/A	0.00				
.				#N/A	0.00	$0		$0	$0
	Subtotal					$6,057,562	98.0%	$5,937,562	$120,000
						Total Buildings	Percent Land	Total Land	Total Water

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

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	# units	width	length	# floors	footprint area		volume	
building volumes for demolition								
guard house	1	15	15	1	225		225	m3
mill building	1	112	115	5	12880		64,400	m3
primary crusher	1	12	22	5	264		1,320	m3
pebble crusher	1	12	22	5	264		1,320	m3
conveyors	1	4	480	1	1920		1,920	m3
powerhouse	1	35	52	3	1820		5,460	
camp	11	10	55	1	6050		6,050	m3
kitchen	1	20	60	1	1200		1,200	m3
reception	1	20	20	1	400		400	m3
service shop	1	33	100	4	3300		13,200	m3
utilidor/walkways	1	4.5	365	1	1642.5		1,643	m3
assay lab	1	22	22	2	484		968	m3
cold storage	3	18	36	2	1944		3,888	m3
	4	30	45	2	5400		10,800	m3
batch plant	1	21	50	3	1050		3,150	m3
fuel tank	1	30	dia.	15	707		10,598	m3
				area	39550	volume	126,541	
	demolished volume at 25%						31635	
	cover area at 10 m ave depth						3164	
	cover volume at 2 m cover						6327	m3

1 Chemicals and Soil Contamination: *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	km		mherh				$0	
.	allowance	pallet	10	LCRH	2366.4	$23,664	0%	$0	$23,664
B	PCB, hauling	litre		#N/A	0	$0		$0	$0
.	PCB, disposal	litre		#N/A	0	$0		$0	$0
C	FUEL			#N/A	0	$0		$0	$0
.	Type 1, 200 tonnes	km		#N/A	0	$0		$0	$0
.	Type 2	kg		#N/A	0	$0		$0	$0
.	Type 3	kg		#N/A	0	$0		$0	$0
D	WASTE OIL			#N/A	0				
.	Oils/lubricants - burn on-site	litre	50000	OBH	0.561	$28,050	0%	$0	$28,050
.	Oils/lubricants - ship off-site	litre		#N/A	0	$0		$0	$0
.	removal glycol	litre	1,000	#N/A	0	$0		$0	$0
E	remove batteries	kg		#N/A	0	$0		$0	$0
.	remove paints	litre		#N/A	0	$0		$0	$0
.	remove solvents	litre		#N/A	0	$0		$0	$0
.	Oils/lubricants - disposal fee	litre		#N/A	0	$0		$0	$0
.	PROCESS OR TREATMENT CHEMICALS			#N/A	0				
F	Removal of other chemicals	allow	1	#N/A	150000	$150,000	0%	$0	$150,000
	Type 2	kg		#N/A	0	$0		$0	$0
	Type 3	kg		#N/A	0	$0		$0	$0
	Type 4	kg		#N/A	0	$0		$0	$0
	EXPLOSIVES	kg	10000	ERH	2.244	$22,440	50%	$11,220	$11,220
		allow		#N/A	0	$0		$0	$0
	CONTAMINATED SOILS			#N/A	0				
.	Type 1, light fuel	m3	500	csrh	122.4	$61,200	50%	$30,600	$30,600
G	Type 2, heavy fuel and oil	m3	1000	csrh	122.4	$122,400	50%	$61,200	$61,200
.	Type 3, metals	m3		#N/A	100	$0		$0	$0
.	Haz. Mat. testing & assessment			#N/A					
.	Technician and analyses	each	1	#N/A	20000	$20,000	50%	$10,000	$10,000
H	Drilling	each	1	#N/A	75000	$75,000	50%	$37,500	$37,500
.	Reporting		1	#N/A	20000	$20,000	50%	$10,000	$10,000
.	Other			#N/A	0	$0		$0	$0
.	OTHER			#N/A					
.	remove nuclear densometers from mill	each	4	#N/A	4000	$16,000		$0	$16,000
	Subtotal					$538,754	29.8%	$160,520	$378,234
						Total Chemical	Percent Land	Total Land	Total Water

1 /ater Management Project: _____ Project # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	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
	Other			#N/A	0	$0		$0	$0
B	OBJECTIVE: UPGRADE SPILLWAY			#N/A					
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Excavate channel	m3		#N/A	2.83	$0		$0	$0
	Place rip rap	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
C	OBJECTIVE: STABILIZE SEDIMENT CONTAINMENT POND			#N/A					
	Place soil cover	m3		#N/A	0	$0		$0	$0
	Place geotextile	m2		#N/A	0	$0		$0	$0
	Vegetate	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	OBJECTIVE: BREACH EMBANKMENT			#N/A					
	Remove Fill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
E	OBJECTIVE: COLLECTION PONDS			#N/A					
	Breach dams	m3		#N/A	2.83	$0		$0	$0
	place geotextile,	m2		#N/A	10	$0		$0	$0
	place rock over geotextile	m3		#N/A	5.65	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
F	OBJECTIVE: BREACH DITCHES			#N/A					
	Excavate	m3		#N/A	0	$0		$0	$0
	Backfill/recontour	m3		#N/A	0	$0		$0	$0
	Vegetate	ha		#N/A	0	$0		$0	
	Other			#N/A	0	$0		$0	$0
G	OBJECTIVE: REMOVE PIPELINES			#N/A					
	Remove pipes	m		#N/A	0	$0		$0	$0
	Concrete plug deep pipes	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
H	OBJECTIVE:			#N/A					
	Excavate/construct spillway	m3		#N/A	4.83	$0		$0	$0
	Excavate & backfill	m3		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
I	OBJECTIVE: COLLECT DRAINAGE FOR TREATMENT			#N/A					
	Excavate collection ditches	m3		#N/A	0	$0		$0	$0
	Rip rap ditches	m3		#N/A	0	$0		$0	$0
	Pipes	m		#N/A	0	$0		$0	$0
	Pumps	each		#N/A	0	$0		$0	$0
	Collect'n pond, exc. mat'l A	m3		#N/A	0	$0		$0	$0
	, exc. mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, fill mat'l A	m3		#N/A	0	$0		$0	$0

1 **/ater Management Project:** **Project # *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
	, fill mat'l B	m3		#N/A	0	$0		$0	$0
	Collect'n pond, liner	m2		#N/A	0	$0		$0	$0
J	OBJECTIVE: TREAT DRAINAGE (see "ONGOINC			#N/A					
	Build treatment plant	lump sum		#N/A	0	$0		$0	$0
				#N/A	0	$0		$0	$0
	Subtotal					$0	#DIV/0!	$0	$0
						Total Water	Percent Land	Total Land	Total Water

1 **Mobilization Name:** **Mob # *1***

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A	MOBILIZE HEAVY EQUIPMENT					
	Equipment to regional centre					
.	allowance, 2 barge trips (in and out) to Baker La		2	#N/A	100000	$200,000
.	allowance, mob from Baker Lake to mine	km	2	#N/A	25000	$50,000
.	Dozers	km		#N/A	0	$0
.	Demolition shears	km		#N/A	0	$0
	Equipment, regional centre to site			#N/A		
.	Excavators - 2	km		#N/A	0.00	$0
.	Dump trucks - 15	km		#N/A	0.00	$0
.	Dozers - 4	km		#N/A	0.00	$0
	Demolition shears - 2			#N/A	0.00	$0
	Front end loader 2			#N/A	0.00	$0
	cranes - 2			#N/A	0.00	$0
	service vehicles -10			#N/A	0.00	$0
.		km		#N/A		
B	MOBILIZE CAMP			#N/A		
.		allowance		#N/A		$0
C	MOBILIZE WORKERS			#N/A		
.	air charters			#N/A	45	$0
D	MOBILIZE MISC. SUPPLIES			#N/A		
.	Fuel	litre		#N/A	0.78	$0
.	Minor tools and equipment	owance	1	#N/A	50000	$50,000
.	Truck tires	owance		#N/A	0	$0
E	MOBILIZE & HOUSE WORKERS	person days		#N/A		
.	11200 man-days	month	373	accml	1346.4	$502,207
.	WINTER ROAD			#N/A		
.	Full winter use	km		#N/A	0	$0
.	Limited winter use	km		#N/A	0	$0
.				#N/A	0	$0
F	BONDING	lump sum		#N/A		
.				#N/A		$0
G	TAXES	lump sum				
.				#N/A		$0
H	INSURANCE	lump sum				
.				#N/A		$0
	Subtotal					$802,207
						Total Mob.

Equipment Mobilization	# of machines	loads/machine	round trip km	total road mileage
excavator	2	3	800	4800
dump trucks	15	10	800	120000
dozers	4	5	800	16000
demolition shears	2	6	800	9600
front end loader	2	3	800	4800
cranes	2	1	800	1600
service vehicles	10	2	800	16000

1 Monitoring & Maintenance Mon / Mtce # *1*

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost
A	OBJECTIVE: POST-CLOSURE INSPECTIONS					
	Annual geotechnical insp.	each	8	#N/A	$10,000	$80,000
.	Survey inspection	each		#N/A	$0	$0
.	Water sampling	yrs	8	#N/A	$75,000	$600,000
.	Reporting	yrs	8	#N/A	$20,000	$160,000
.	Other			#N/A	$0	$0
B	OBJECTIVE: INTERIM CARE & MAINTENANCE			#N/A		
.	annual C&M	yrs		#N/A	$0	$0
.		month		#N/A		$0
.		month		#N/A	$0	$0
.		each		#N/A	$0	$0
.		allowance		#N/A		
				#N/A		$0
	Subtotal					$840,000

Total Mon./Maint.

1 Post-Closure Site Maintenance

	ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A	WATER TREATMENT								
	Total annual cost, unit cost from Ongoing Water Treatment				0	$0		$0	$0
B	Cover Maintenance								
	Repair erosion, remove trees	ha		#N/A	0	$0		$0	$0
C	Spillway Maintenance			#N/A					
	Repair erosion	m3		#N/A	0	$0		$0	$0
	Clear spillway	each		#N/A	0	$0		$0	$0
	Other			#N/A	0	$0		$0	$0
D	Other			#N/A					
								$0	$0
								$0	
	Subtotal, Annual post-closure costs					$0		$0	$0
	Discount rate for calculation of net present value of post-closu			3.00%				$0	
	Number of years of post-closure activity				0 years			$0	
	Present Value of payment stream					$0	#DIV/0!	$0	$0
						Total Post closure	Percent Land	Total Land	Total Water

WATER TREATMENT COSTS

ANNUAL VOLUME OF WATER (m3)

Reagent addition rates

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

Supplies and Labour

power, kW-hr	0	rate, $/kW-h	0.08	$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 maintenace & 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 suppli		$0
TOTAL ANNUAL COSTS, reagents plus labour and supplies				$0
Average treatment cost, $/m3				$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

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
1	**excavate Rock, Bulk**						COMMENTS
	drill, blast, load short haul (<500m) Dump	RB1	m3	9.54	14.28	#N/A	quarry operations for bulk fill
	RB1 + long haul, up to 1500 m	RB2	m3	10.10	14.89	#N/A	
	RB1 + spread and compact	RB3	m3	10.10	14.89	#N/A	
	RB1 + long haul + spread and compact	RB4	m3	10.66	25.76	#N/A	
	RB1 + Specified activity	RBS	m3	#N/A	#N/A	#N/A	
2	**excavate Rock, Controlled**			0.00	0.00	0.00	
	drill, blast, load short haul (<500m) Dump	RC1	m3	22.44	33.66	#N/A	spillway excavation
	RC1 + long haul, up to 1500 m	RC2	m3	10.66	15.40	#N/A	
	RC1 + spread and compact	RC3	m3	10.10	14.89	#N/A	
	RC1 + long haul + spread and compact	RC4	m3	11.32	16.04	#N/A	
	RC1 + Specified activity	RCS	m3	#N/A	#N/A	147.90	$145/M3-drift excavation
3	**excavate Soil, Bulk**			0.00	0.00	0.00	
	excavate, load short haul (<500m) dump	SB1	m3	3.26	4.95	#N/A	LOW cost: excavation of loose soil, high volume
	SB1 + long haul, up to 1500 m	SB2	m3	4.06	6.09	#N/A	LOW cost: excavation of loose soil, 1.5 km haul, high volume
	SB1 + spread and compact	SB3	m3	3.77	5.42	#N/A	
	SB1 + long haul + spread and compact	SB4	m3	4.59 0.00	9.13 0.00	#N/A 0.00	LOW cost: excavation of loose soil, 1.5 km haul, high volume, const. of simple soil cover
	SB1 + Specified activity	SBS	m3	2.36	6.51	11.17	LOW cost: rehandle waste rock dump into pit, >500,000 m3, 2 km haul
				0.00 0.00	0.00 0.00	0.00 0.00	SPECIFIED cost: rehandle waste rock, haul 3 km, place & compact on dam
	Soil, tailings	SBT	m3	3.09	7.29	0.00	LOW cost: doze tailings, HIGH cost: excavate & short haul
4	**excavate Soil, Controlled**			0.00	0.00	0.00	
	excavate, load short haul (<500 m), dump	SC1	m3	5.72	7.80	#N/A	
	SC1 + long haul, up to 1500 m	SC2	m3	7.09	9.83	#N/A	
	SC1 + spread and compact	SC3	m3	5.72	11.89	#N/A	HIGH cost: for simple soil covers
	SC1 + long haul + spread and compact	SC4	m3	6.43	19.43	#N/A	HIGH cost: for complex covers & dam construction, spillway repair, LOW volume
	SC1 + Specified activity	SCS	m3	#N/A	#N/A	16.07	SPECIFIED cost: backfill adit with waste rock
	Geo-synthetics			0.00	0.00	0.00	
	geotextile, filter cloth	GST	M2	1.01	2.02	#N/A	FOB Edmonton, add shipping & installation
	geogrid	GSG	M2	4.82	0.00	#N/A	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
	liner, HDPE	GSHDPE	M2	6.01	0.00	#N/A	
	liner, PVC	GSPVC	M2	0.00	0.00	#N/A	
	geosynthetic installation	GSI	m2	0.85	1.02	#N/A	
	bentonite soil ammendment	GSBA	tonne	258.06	291.72	#N/A	FOB Edmonton, add shipping & mixing
	Shaft, Raise & Portal Closures			0.00	0.00	0.00	
	Shaft & Raises	SR	m2	540.60	1785.00	#N/A	LOW cost: pre-cast concrete slabs, little site prep. HIGH cost: for hand construction, remote site
	Portals	POR	m3	0.00	209.10	1020.00	HIGH cost: for excavate & backfill collapsed portal SPECIFIED cost: installed pressure plug
				0.00	0.00	0.00	
				0.00	0.00	0.00	
				0.00	0.00	0.00	
				0.00	0.00	0.00	
				0.00	0.00	0.00	
				0.00	0.00	0.00	
				0.00	0.00	0.00	
5	**Concrete work**			0.00	0.00	0.00	
	Small pour, no forms	CS	m3	302.94	606.90	#N/A	
	Large pour, no forms	CL	m3	239.70	357.00	#N/A	
	Small pour, Formed	CSF	m3	357.00	1785.00	#N/A	
	Large pour, Formed	CLF	m3	295.80	418.20	#N/A	
6	**Vegetation**			0.00	0.00	0.00	
	Hydroseed, Flat	VHF	ha	1626.90	5049.00	#N/A	
	Hydroseed, Sloped	VHS	ha	1884.96	5666.10	#N/A	
	veg. Blanket/erosion mat	VB	ha	11220.00	13464.00	#N/A	
	Tree planting	VT	ha	11220.00	13464.00	#N/A	
	Wetland species	VW	ha	56100.00	84150.00	#N/A	
7	**Pumps**			0.00	0.00	0.00	
	Small, <	PS	each	3060.00	6120.00	#N/A	
	Large, >	PL	each	5100.00	########	#N/A	large - 250 hp Gould w/diesel motor
8	**PiPes**			0.00	0.00	0.00	
	Small, < 6 inch diameter	PPS	m	0.51	5.10	#N/A	LOW cost: pipe removal, HIGH cost: supply new pipe SPECIFIED: small, heat traced & insulated pipe
	Large, > 6 inch diameter	PPL	m	1.02	183.60	#N/A	LOW cost: pipe removal, HIGH cost: supply 24" 100 psi HDPE pipe, FOB Edm.
				0.00	0.00	0.00	add shipping & installation

Unit Cost Table

	ITEM Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
9	**pump sand BackFill**	BF	m3	5.61	16.83	#N/A	
10	**Fence**	F	m	11.22	168.30	#N/A	
11	**Signs**	S	each	11.22	33.66	#N/A	
12	**rock, Drill and Blast only**	DB	m3	11.22	22.44	#N/A	
	(flatten slope, collapse drift)			0.00	0.00	0.00	
13	**excavate Rip Rap**			0.00	0.00	0.00	
	drill, blast, load short haul (<500 m) dump and spread	RR1	m3	11.17	16.68	#N/A	
	RR1 + long haul	RR2	m3	11.32	17.29	#N/A	HIGH cost: quarry & place rip rap in channel
	excavate rock from waste dump, short haul, spread	RR3	m3	4.28	5.90	#N/A	LOW cost: removal of 18 in minus from dump, long haul and spread
				0.00	0.00	0.00	HIGH cost: removal of coarse rock from dump, long haul, armour spillway
	RR3 + long haul	RR4	m3	4.77	6.38	#N/A	
	specified rip rap source	RR5	m3	#N/A	#N/A	#N/A	
14	**Import LimeStone**	ILS	tonne	8.98	13.46	#N/A	
15	**Import LiMe**	ILM	tonne	168.30	504.90	#N/A	LOW cost: bulk shipping, high volume, FOB Vancouver/Edmonton
				0.00	0.00	0.00	HIGH cost: bags delivered to central Yukon, small volume
16	**Grouting**	G	m3	201.96	244.80	#N/A	HIGH cost: cement, FOB Yellowknife
17	**Dozing**			0.00	0.00	0.00	
	doze Rock piles	DR	m3	0.87	1.99	#N/A	LOW cost: doze crest off dump
	doze overburden/Soil piles	DS	m3	0.80	3.17	#N/A	HIGH cost: push up to 300 m
18				0.00	0.00	0.00	
				0.00	0.00	#N/A	
				0.00	0.00	#N/A	
19				0.00	0.00	0.00	
				0.00	0.00	#N/A	
				0.00	0.00	#N/A	
20				0.00	0.00	0.00	
			each	0.00	0.00	#N/A	
			each	0.00	0.00	#N/A	
21	**Buildings - Decontaminate**			0.00	0.00	0.00	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
	Chemicals	BDC	m3	#N/A	#N/A	#N/A	
	Asbestos	BDA	m2	21.42	42.84	#N/A	LOW cost: removal of asbestos siding & flooring HIGH cost: removal of insulated pipes, friable asbestos
				0.00	0.00	0.00	
22	**Buildings - Remove**			0.00	0.00	0.00	
	areas are per floor on 3 m average height			0.00	0.00	0.00	LOW cost: removal and on-site disposal - small wooden structures
	Wood - teardown	BRW1	m2	21.93	33.66	#N/A	
	Wood - burn	BRW2	m2	5.61	11.22	#N/A	
	Masonry	BRM	m2	24.12	33.66	#N/A	
	Concrete	BRC	m	33.66	50.49	6.12	LOW cost: removal of building perimeter walls, HIGH cost: per m3 for bulk concrete SPECIFIED cost: $/m2 to break floor slab
	Steel - teardown	BRS1	m2	35.90	53.86	244.80	SPECIFIED cost: demolition shear $/hour operating
	Steel - salvage	BRS2	m2	56.10	84.15	#N/A	
23	**Power & Pipe Lines**			0.00	0.00	0.00	
	Power lines, remove	POWR	each	21.32	4712.40	#N/A	
	Small, < 6 inch diameter	PPS	m	0.51	5.10	#N/A	LOW cost: pipe removal, HIGH cost: supply new pipe
	Large, > 6 inch diameter	PPL	m	1.02	183.60	#N/A	LOW cost: pipe removal, HIGH cost: supply 24" 100 psi HDPE pipe, FOB. Add shipping
24	**Laboratory Chemicals**			0.00	0.00	0.00	
	Remove from site	LCR	pallet	1785.00	2366.40	#N/A	
	Dispose on site	LCD	each	#N/A	#N/A	#N/A	
25	**PCB - Remove from site**	PCBR	litre	33.66	39.27	#N/A	LOW cost: shipping, handling & disposal from Yellowknife
				0.00	0.00	0.00	
26	**Fuel**			0.00	0.00	0.00	
	Remove from site	FR	kg	0.00	1.04	#N/A	
	Burn on site	FB	kg	#N/A	#N/A	#N/A	
27	**Oil**			0.00	0.00	0.00	
	Remove from site	OR	litre	0.36	1.04	#N/A	
	Burn on site	OB	litre	0.36	0.56	#N/A	
28	**Process Chemicals**			0.00	0.00	0.00	
	Remove from site	PCR	kg	0.36	2.09	#N/A	
	Dispose on site	PCD	kg	#N/A	#N/A	#N/A	
29	**Explosives**			0.00	0.00	0.00	
	Remove from site	ER	kg	0.00	2.24	#N/A	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $	
	Dispose on site	ED	kg	#N/A	#N/A	#N/A	
30	**Contaminated Soils**			0.00	0.00	0.00	
	Remediate on site	CSR	m3	39.27	122.40	#N/A	LOW cost: bio-remediate on-site. HIGH cost: ship off-site to landfil as haz. waste
	consolidate & cover	Use cost code iter		0.00	0.00	0.00	
	cover in place	Use cost code iter		0.00	0.00	0.00	
31	**Mobilize Heavy Equipment**			0.00	0.00	0.00	
	Road access	MHER	$/km	2.87	8.59	2.09	SPECIFIED cost: $/tonne/km in cargo plane
	Air access	MHEA	each	#N/A	#N/A	1402.50	SPECIFIED cost: helicopter cost, $/hr of operation
32	**Mobilize Camp**			0.00	0.00	0.00	
	<20 persons Road access	MC<R	each	#N/A	#N/A	#N/A	
	<20 persons Air access	MC<A	each	#N/A	#N/A	#N/A	
33	**Mobilize Workers**			0.00	0.00	0.00	
	mobilize	MM<	person	196.86	1009.80	#N/A	LOW cost: road access. HIGH cost: transport by Twin Otter aircraft
	>20 persons	MM>	person	1009.80	1346.40	#N/A	
34	**ACCoModation**	ACCM	month	1346.40	2019.60	#N/A	LOW cost, accom in existing camp, per man, HIGH cost: - supply new camp
35	**Mobilize Misc. Supplies**	MMS	each	#N/A	#N/A	#N/A	LOW cost: winter road - limited use, LOW snowfall
36	**Winter Road**	WR	km	1346.40	2672.40	#N/A	
37	**Visual site Inspection**	VI	each	3590.40	7242.00	10200.00	
38	**Survey site Inspection**	SI	each	#N/A	#N/A	#N/A	
39	**Water Sampling**	WS	each	5610.00	9180.00	#N/A	
40	**site inspection RePorT**	RPT	each	#N/A	11220.00	#N/A	
41	**Security Guard**	SG	pers/mo	5610.00	7854.00	#N/A	
42	**Maintain Pumping**	MP	month	3366.00	#N/A	#N/A	
43	**Clear SpillWay**	CSW	each	1907.40	5385.60	#N/A	
44	**Build Treatment Plant**			0.00	0.00	0.00	
	Small (< 1000 m3/d)	BTPS	lump su	########	########	#N/A	
	Large (> 1000 m3/d)	BTPL	lump su	########	########	#N/A	
45	**Operate Treatment Plant**	OTP	m3	0.30	1.68	#N/A	
46	**SCariFY road and install water breaks**	SCFY	km	3595.50 0.00	5049.00 0.00	#N/A 0.00	

Unit Cost Table

ITEM	Detail	COST CODE	UNITS	LOW $	HIGH $	SPECIFIED $
				0.00	0.00	0.00
water treatment chemicals				0.00	0.00	0.00
ferric sulphate		ferric	kg	0.68	0.00	0.00
ferrous sulphate		ferrous	kg	0.45	0.00	0.00
lime		lime	kg	0.31	#VALUE!	0.00
hydrogen peroxide, 50%		hperox	kg	1.46	0.00	0.00
Sodium Metabisulfate		Nametab	kg	1.01	0.00	0.00
Caustic soda, 50%		caustic	kg	0.63	0.00	0.00
Sulfuric acid, 93%		sulfuric	kg	0.27	0.00	0.00
flocculant		flocc	kg	5.50	0.00	0.00
copper sulphate		copper	kg	0.00	0.00	0.00
typical shipping, to Whitehorse or Yellowknife			kg	0.07	0.00	0.00
				0.00	0.00	0.00
Typical Labour & Equipment Rates				0.00	0.00	0.00
	Site manager		$/hr	71.40	81.60	0.00
	Mine superintendent		$/hr	0.00	61.20	0.00
	Environmental coordinator		$/hr	0.00	61.20	0.00
	Journeyman (mech, elec, weld)	LUGE	$/hr	51.00	61.20	0.00
	Equipment operator		$/hr	45.90	56.10	0.00
	labour - skilled	LLUGG	$/hr	35.70	38.76	0.00
	labour - unskilled		$/hr	32.64	35.70	0.00
	Security / first aid		$/hr	38.76	48.96	0.00
	Admin.		$/hr	42.84	49.98	0.00
				0.00	0.00	0.00
	average			45.46	0.00	0.00
				0.00	0.00	0.00
				0.00	0.00	0.00
				0.00	0.00	0.00
	Front end loader, ?, Cat992		$/hr	0.00	336.60	0.00
	excavator, Cat235		$/hr	0.00	178.50	0.00
	dump truck - tandem		$/hr	0.00	0.00	0.00
	dump truck off road, Cat 777		$/hr	270.30	0.00	0.00
	dozer, D8, D10		$/hr	173.40	306.00	0.00
				0.00	0.00	0.00
				0.00	0.00	0.00
				0.00	0.00	0.00
				0.00	0.00	0.00