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*By Richard Dwyer at 5:21 pm, Mar 31, 2011*

**2011 ABANDONMENT AND RECLAMATION PLAN**

**Appendix E  
Closure Criteria**

## Project Site Abandonment

TOTALS		Closure Criteria
Pre-abandonment shutdown		
Drain, isolate and secure camp water systems	Mary River Project Site abandonment is completed such that all facilities, equipment and material are secured in a method that ensures: 1. The short term safety of all persons who return or travel to the abandoned site. A. All power systems are isolated and secured with locks B. All mechanical systems are de-energized. 2. The short term protection of the environment by securing and preventing any negative impact on the natural environment, including: A. Drain, isolate and secure Camp sewage treatment plant, lines and lagoons B. Drain, isolate and secure all local fuel storage supply systems . C. Isolate and secure all bulk fuel storage systems such that tanks and bladders are isolated and contained within secondary containment D. Secure all barreled fuel in secondary containment E. Secure all hazardous waste in secondary containment 3. Provide the QIA with a report summarizing the specific task executed in meeting these criteria.	
Drain, isolate and secure Camp sewage treatment plant, lines and lagoons		
Drain, isolate and secure all local fuel storage supply systems		
Isolate and secure all bulk fuel storage systems such that tanks and bladders are isolated and contained within secondary containment		
Secure all barreled fuel in secondary containment		
Secure all hazardous waste in secondary containment		
Isolate and safely secure all mechanical and electrical elements.		
BIMC declares bankruptcy and abandons Mary River and Milne Inlet (Oct 10, 2011)		
Post-Abandonment Inspection by QIA		
Commercial Flights (Ottawa - Iqaluit return x 3)	Criteria to be established by Landowner prior to inspection	
Charter flight (Iqaluit - MR - MI - MR-Iqaluit)		
Inspect and secure critical areas at Mary River and Milne Inlet		
Preliminary assessment to support closure design and future A&R execution.		

# Bulk Sample Pit

TOTALS		Closure Criteria
Decommission bulk sample pit		
Remedial blasting for stability		<p>The Bulk Sample Pit is a misnomer in that the area where the bulk sample was removed consists of two benches, the lowest of which is open at grade to the South face of the mountain. Providing for the public safety:</p> <ol style="list-style-type: none"> <li>1. The pit walls or rock faces are stable and are satisfactory to the Nunavut Workplace Safety and Compensation Commission Mines Inspector</li> <li>2.. Berms are constructed restricting vehicle access beyond the lowest bench over the edge of the mountain</li> <li>4. The pit or bench floor is graded and sloped such that it is free draining</li> <li>5. Access to the benches bermed to prevent motor vehicle access</li> <li>6. All residual overburden and ore is chemically stable and surface water drainage is below the water license effluent criteria and the concentration limits listed under the Schedule 4 of the Metal Mines Effluent Regulations(MMER)</li> </ol>
Remedial excavation for stability		
Runoff diversion around top of pit		
Decommission explosives magazine		

## Mineral Exploration Areas (Deposits No. 1, 2, 3)

TOTALS		Closure Criteria
Decommission mineral exploration areas		
Remove water lines from exploration areas		1. The aluminum Victaulic water lines and residual hose on #1 deposit are removed and disposed of the Mary River landfill
Drill holes filled and residual casings cut		1. Exploration drill holes residual casing is cut at surface and the hole filled. 2. All drill cuttings not required to fill the hole are spread evenly over the ground surrounding the hole
Level pads, backfill sumps and grade to natural contours		1. Drill pads created during the 1960s are to be left in their current state. After 40 years, the historical access roads and pads are stable and the natural recovery of vegetation is well established with low susceptibility to erosion. 2. Drill pads created during exploration activity in the 2000s are leveled, sloped and contoured to the surrounding topography 3. Sumps are backfilled and contoured to the surrounding topography. 4. Surface configuration - Where contouring of above grade earthworks, slopes, where practical, should be graded to no steeper than 3 horizontal: 1 vertical. Slopes should usually be graded in a configuration that allows for even, unconcentrated drainage. 5. Regraded slopes are tracked walked perpendicular to the grade to trap fines in the track marks and dissipate energy from runoff.
Prepare core for long-term site storage adjacent to airstrip		1. Exploration drill core transferred to sea containers for long term storage. 2. Containers welded closed and stored on the North side of the Mary River airstrip on dry, flat stable ground for long term storage
Inspection and final reclamation of exploration drill hole locations		1. Final inspection of all exploration areas to confirm completion of all work breakdown structure tasks listed above
Decommission salt mixing stations		1. Salt mixing stations and water pump stations are dismantled and removed from site and disposed of in the Mary River landfill.

Remote Sites

TOTALS		Closure Criteria
Remote Sites		
Inspection and final reclamation of geotechnical drill holes and test pit locations		1. Geotechnical drill holes are filled, residual casing is cut at surface, and sumps are graded to natural contours 2. All drill cuttings not required to fill the hole are spread evenly over the ground surrounding the hole
Removal of casing/thermistors		Thermocouple cable is removed, residual casing is cut at surface and sumps are graded to natural contours.
Decommissioning of meteorological stations (3)		1. Meteorological station equipment & material is removed from each site and disposed of in the Mary River landfill 2. The disturbed land graded to natural contours.
Decommissioning of hydrology stations (4)		1. Hydrology equipment & materials are removed from hydrology sites and disposed of in the Mary River landfill.
Removal of current meter in Steensby Inlet		N/A

# Stockpiles

	Closure Criteria
TOTALS	
Mary River Stockpiles	
Grade weathered ore stockpiles at crusher area	
Haul and place cover on ore pad area at Mary River	1. . Stockpiles are chemically stable with no acid rock drainage 2. Stockpiles requiring covering for long term stability and to ensure they are aesthetically and environmentally compatible with surrounding undisturbed landscape and to allow for future use by people and wildlife. 3. Recontouring and regrading to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.
Milne Inlet Stockpiles	
Grade residual ore stockpiles at Milne Inlet	1. . Stockpiles are chemically stable with no acid rock drainage 2. Stockpiles requiring covering for long term stability and to ensure they are aesthetically and environmentally compatible with surrounding undisturbed landscape and to allow for future use by people and wildlife.

Stockpiles

	Closure Criteria
Haul and place cover on ore pad area at Milne Inlet	3. Recontouring and regrading to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.

## Camps & Related Facilities

		Closure Criteria
<b>GRAND TOTAL</b>		
	<b>Site Contractor Decommissioning and Demob - Mary River Camp</b>	
	Decommission/Package mobile equipment	Mobile equipment is decommission and packaged for sealift backhaul.
	Ship material by land to Milne Inlet for shipment	N/A - Logistics support for execution of A & R Plan
	<b>Decommissioning Mary River camp</b>	
	Decommission 100 man Weatherhaven camp	<ol style="list-style-type: none"> <li>1. All contractor owned equipment is decommissioned , packaged and backhauled to the south.</li> <li>2. All Baffinland owned equipment designated as salvage are to decommissioned, packaged and backhauled to the south.</li> <li>3. All remaining buildings, material and infrastructure are to be demolished, removed and disposed of in the Mary River Landfill <ol style="list-style-type: none"> <li>A. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</li> </ol> </li> </ol>
	Decommission/Package stand alone accommodation/work tent camp (26 Weatherhaven tents)	



## Camps & Related Facilities

	Closure Criteria
Decommission/Package stand alone accommodation/work tent camp (11 Norseman tents)	
Decommission concrete sewage tanks	<p>All remaining buildings, material and infrastructure are to be demolished, removed and disposed of in the Mary River Landfill</p> <p>A. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p>
Burn appropriate materials or Landfill	<p>All remaining buildings, material and infrastructure are to be demolished, removed and disposed of in the Mary River Landfill</p> <p>A. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</p> <p>All material not scheduled for backhaul to the south will be either landfilled or burned in compliance with existing permit requirements</p>
Ship material by land to Milne Inlet for sealift Yr. 3	N/A - Logistics Support for execution of A & R Plan

## Camps & Related Facilities

	Closure Criteria
Electrical Support for all decommissioning work at Mary River and Milne Inlet	Electrical Support for execution of A & R plan
<b>Organize material for shipment</b>	
Boart	All equipment and material removed and backhauled to the South.
Nuna	All equipment and material removed and backhauled to the South.
Package BIM sea cans for backhaul	All equipment and material removed and backhauled to the South.
Decommission/Package 3 shops	Shops are of temporary construction and are to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
Decommission/Package related infrastructure (lines, piping, associated small buildings)	All remaining infrastructure is of temporary construction and is to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
<b>General site cleanup</b>	

## Camps & Related Facilities

	Closure Criteria
Loader use for redirecting coarse clean up streams	All foreign material is collected and removed from the surface of the ground are to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet <del>2. Dispose of remaining buildings &amp; material in the landfill</del>
Clean up residual fine waste on ground	All residual foreign material is collected and removed from the surface of the ground
<b>Contouring &amp; grading</b>	
Coarse contouring - Dozer	All disturbed land associated with the camp including pads, staging & lay down areas and accesses shall be reclaimed as follows: 1. Complete removal of all drainage structures. 2. Contour & grading of all disturbed areas to the natural topography 2. Application of armouring in areas of high erosion potential where slope & grade are inadequate for erosion control 5. Roadblocks to prevent vehicular access, where earthworks may create a hazard for motor vehicles
Coarse contouring - loader & excavator	
Final grading	
<b>Decommission Refuge Sites</b>	
Decommission refuge sites	All equipment & material is disposed of in the landfill or backhauled south.
<b>Site Contractor Decommissioning and Demob - Milne Inlet Camp</b>	
Decommission/Package Shanco Camp (10 trailers)	All equipment and material disposed of in the landfill or removed and backhauled to the South.

## Camps & Related Facilities

	Closure Criteria
Decommission remaining mobile equipment	Equipment and material removed and backhauled to the South for salvage or for delivery to contractor
<b>Decommission Milne Inlet camp (4 month operation @ Avg 4 person/day)</b>	
Decommission/Package other stand alone work tents (9 wood structure tents)	<p>All buildings &amp; material re of temporary construction and are to be removed and disposed of in the Mary River Landfill</p> <ol style="list-style-type: none"> <li>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</li> <li>2. Remove equipment designated as salvage in the Sealfit In worksheet</li> <li>3. Dispose of remaining buildings &amp; material in the landfill.</li> </ol>
Truck waste from Milne Inlet Camp to Mary River Camp for land filling	Transportation service to support execution of A & R plan

## Camps & Related Facilities

	Closure Criteria
<b>Organize material for shipment</b>	
Nuna	All equipment and material removed and backhauled to the South.
BIM Barge Loader	Equipment and material removed and backhauled to the South for salvage
Decommission/Package 1 shops	Shops are of temporary construction and are to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
Decommission/Package related infrastructure (lines, piping, associated small buildings)	All remaining infrastructure is of temporary construction and is to be removed and disposed of in the Mary River Landfill. 1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. 2. Remove equipment designated as salvage in the Sealift In worksheet 3. Dispose of remaining buildings & material in the landfill.
<b>General site cleanup</b>	
Loader use for redirecting coarse clean up streams	All foreign material is collected and removed from the surface of the ground
Clean up residual fine waste on ground	All residual foreign material is collected and removed from the surface of the ground
<b>Contouring &amp; grading</b>	
Coarse contouring - Dozer	

## Camps & Related Facilities

	Closure Criteria
Coarse contouring - loader & excavator	<p>All disturbed land associated with the camp including pads, staging &amp; lay down areas and accesses shall be reclaimed as follows:</p> <ol style="list-style-type: none"> <li>1. Complete removal of all drainage structures.</li> <li>2. Contour &amp; grading of all disturbed areas to the natural topography</li> <li>2. Application of armouring in areas of high erosion potential where slope &amp; grade are inadequate for erosion control</li> <li>5. Roadblocks to prevent vehicular access, where earthworks may create a hazard for motor vehicles</li> </ol>
Final grading	
<b>Decommission Mid-Rail Camp (14 days @ 6 man camp)</b>	
Decommission/Package stand alone accommodation/work tent camp	<p>All buildings, material &amp; equipment is of temporary construction and is to be relocated to Mary River and disposed of in the Mary River Landfill or backhauled to the south.</p> <ol style="list-style-type: none"> <li>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet.</li> <li>2. Remove equipment designated as salvage in the Sealift In worksheet</li> <li>3. Dispose of remaining buildings &amp; material in the landfill.</li> </ol>
Decommission/Package genset and incinerator	
Decommission tent camp and related infrastructure (lines, piping, associated buildings)	
Decommission lay down areas	
General site cleanup	All residual foreign material is collected and removed from the surface of the ground
Fly waste from Mid Rail Camp to Mary River Camp for landfilling	Transportation services to support execution of A & R plan
<b>Decommission Steensby Inlet Camp (14 Days @ 6 man camp)</b>	
Decommission/Package stand alone accommodation/work tent camp (25 wood structure tents)	<p>All buildings, material &amp; equipment is of temporary construction.</p> <ol style="list-style-type: none"> <li>1. All hazardous materials and chemicals are removed prior to demolition and packaged as specified in the Waste Management worksheet. These materials will be backhauled south for disposal in an approved recycling or disposal facility on the Steensby sealift</li> <li>2. Remove equipment designated as salvage in the Sealift In worksheet. This material will be backhauled on the Steensby sealift</li> <li>3. Dispose of remaining buildings &amp; material in the Mar River landfill or backhauled to the South.</li> </ol>
Decommission/package genset and incinerator	
Decommission related infrastructure (lines, piping, associated buildings)	
Decommission lay down areas	

## Camps & Related Facilities

	Closure Criteria
Decommission fuel storage (200 drums of fuel)	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
General site cleanup	All residual foreign material is collected and removed from the surface of the ground
Decommission remaining mobile equipment (4 pieces)	Remove equipment designated as salvage in the Sealift In worksheet. This material will be backhauled on the Steensby sealift
Organize material for shipment and sealift support	<ul style="list-style-type: none"> <li>- Coordinate sealift with charter company</li> <li>- All reclamation work to be completed and no material, equipment or any other unnatural thing remains at the Steensby Camp</li> <li>- Use Loader to back blade &amp; contour land disturbed by camp infrastructure &amp; sealift activity</li> <li>- Upon completion of sealift, all reclamation work is complete at Steensby</li> </ul>
Steensby Port resupply by Helicopter	Transportation services to support execution of the A & R plan

# Roads & Airstrips

	Closure Criteria
GRAND TOTAL	
Year 2 Freshet Management Field Activities	
Direct Freshet Management Cost	Operational pre-reclamation requirement.
Year 3 Freshet Management Field Activities	



# Roads & Airstrips

	Closure Criteria
Direct Freshet Management Cost	Operational pre-reclamation requirement.
Year 4 Freshet Management Field Activities	

# Roads & Airstrips

	Closure Criteria
Direct Freshet Management Cost	Operational requirement to maintain integrity of the Road infrastructure prior to reclamation.
MI Tote Road Operation	
Operate Tote road for shipments	Operational requirement to maintain integrity of the Road infrastructure prior to reclamation.
#1 Deposit Haul Roads	

# Roads & Airstrips

	Closure Criteria
Inspect and repair any erosion on #1 Deposit Rd. and cross grade road	<p>Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration.</p> <ol style="list-style-type: none"><li>1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required.</li><li>2. Complete removal of crossing structure abutments</li><li>3. Application of rip rap/cobble in areas of high erosion potential where slope &amp; grade controls are inadequate for erosion control</li><li>4. Contouring &amp; grading of roads with cross falls to minimize erosion.</li><li>5. Roadblocks to prevent vehicular access, where, upon removal of drainage &amp; crossing structures or other earthworks, a hazard would exist to motor vehicles</li></ol>
Stabilize inside ditches with cobble	
Remove round culverts, install water bars and stabilize water crossings	
Install safety berms restricting vehicle access at the location where the haul road enters the bulk sample pit	

# Roads & Airstrips

	Closure Criteria
Re-grade pad & repair any erosion at #1 deposit salt station	
Milne Inlet Tote Road	
Inspect and repair any erosion on Tote Road	
Remove all box culvert crossings and stabilize slopes	<p>Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration.</p> <ol style="list-style-type: none"><li>1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required.</li><li>2. Complete removal of crossing structure abutments</li><li>3. Application of rip rap/cobble in areas of high erosion potential where slope &amp; grade controls are inadequate for erosion control</li><li>4. Contouring &amp; grading of roads with cross falls to minimize erosion.</li><li>5. Roadblocks to prevent vehicular access, where, upon removal of drainage &amp; crossing structures or other earthworks, a hazard would exist to motor vehicles</li></ol>

# Roads & Airstrips

	Closure Criteria
Install water bars (road embankment cross cuts) at locations where the road tote road is constructed in to an embankment to prevent erosion	
Remove all round culvert crossings and stabilize slopes.	
General access Roads	
Grade and contour road surfaces and remove culverts from access roads (Explosives, landfill, sewage lagoon and water intake access roads)	<p>Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration.</p> <ol style="list-style-type: none"><li>1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required.</li><li>2. Complete removal of crossing structure abutments</li><li>3. Application of rip rap/cobble in areas of high erosion potential where slope &amp; grade controls are inadequate for erosion control</li><li>4. Contouring &amp; grading of roads with cross falls to minimize erosion.</li><li>5. Roadblocks to prevent vehicular access, where, upon removal of drainage &amp; crossing structures or other earthworks, a hazard would exist to motor vehicles</li></ol>
Airstrips	
Remove Mary River airstrip lighting (there is currently no lighting present at Milne Inlet)	<ol style="list-style-type: none"><li>1. All material, including cables and lights, is removed and disposed of in the Mary River landfill</li><li>2. Ditches are backfilled, graded and coutoured to surrounding landscape</li></ol>

# Roads & Airstrips

	Closure Criteria
Fill in airstrip lighting ditches & regrade at Milne Inlet and Mary River	<div>1. The one drainage culvert spanning and bisecting the airstrip has been in place for 50 years, It will be left in place to allow access to the full length of the airstrip</div> <div>2. The airstrip will be graded to promote drainage and compacted for stability</div>

# Borrow/Quarry Areas

	Closure Criteria
Total	
Geotechnical monitoring of permitted & road side borrow area reclamation	Engineering Task - Criteria to be established as part of the design.
Grade and contour primary borrow sites at Milne Inlet, Mary River, Midway and quarry	Borrow areas are graded and contoured to minimize ponding and prevent erosion and sediment run-off to receiving waters - Slopes are graded to a maximum of 3:1. - Borrow area graded and contoured to prevent ponding. - Drainage is directed away from water sources where possible and armored to prevent erosion. - All borrow areas are physically & geotechnically stable in the long term. - Additional criteria developed in Appendix D
Grade and contour road side borrow areas within alignment	
Borrow materials from permitted borrow areas (m3)	Task is a material cost - No closure criteria

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
GRAND TOTAL	
Mary River Fuel Farm	
Return excess fuel at Mary River to Milne Inlet	Transportation Support for execution of A & R Plan
Drain, fold, and containerize Mary River bladder tanks	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
Remove all geomembrane fuel liners, package and transport to Milne Inlet for sea-lift backhaul	<div>1. Sample soil covering geomembrane for presence of hydrocarbon.</div> <div>2. Soils above the acceptable criteria diverted to land farm for treatment.</div> <div>3. All geomembrane liners are considered to hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet</div>



Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Execute civil works to transport potential hydrocarbon contaminated soil form the Mary River bulk fuel farm to the Milne Inlet land farm	Engineering retained to establish remediation criteria, land farm design & civil works plan and operations manual. Closure criteria to be established as part of the design.

Fuel Storage Facilities (Bulk and Drums)

Closure Criteria	
Execute civil works to transport potential hydrocarbon contaminated soil from Mary River non-bulk fuel farm lined containment areas to the Milne Inlet land farm	EBA engineering retained to establish remediation criteria, land farm design & civil works plan and operations manual. Closure criteria to be established as part of the design.
Recontour surface	<ol style="list-style-type: none"><li>1. Recontour and regrade to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.</li><li>2. Restoration of the pre-disturbance surface water regime, if appropriate.</li><li>3. The area is at grade with no surface water flow - No other method of erosion control is required in this area</li><li>4. Natural revegetation of disturbed areas is the preferred method given the latitude of the project.</li></ol>
Milne Inlet Fuel Farm	

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Milne Inlet fuel farm Oil Water Separation Operation	1. Water is treated and discharged in compliance with regulatory permits and limits
Milne Inlet Bulk Fuel Sealift Backhaul Support	Contract Service for support of execution of A & R Plan

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Drain, fold, and containerize Milne bladder tanks	All piping, bladders and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
Remove Piping from fuel farm	All piping and other material having contained hydrocarbons are considered hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet
Remove all hazardous material/fuel storage geomembrane fuel liners and package for sea-lift backhaul. (All lined berms except Milne Inlet Fuel Farm)	<div>1. Sample soil covering geomembrane for presence of hydrocarbon.</div> <div>2. Soils above the acceptable criteria diverted to land farm for treatment.</div> <div>3. All geomembrane liners are considered to hazardous material and will be backhauled for disposal in approved disposal facilities in the South as described in the Waste Management worksheet</div>

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Execute civil works to convert the fuel farm to hydrocarbon impacted soil land farm	EBA engineering retained to establish remediation criteria, land farm design & civil works plan and operations manual. Closure criteria to be established as part of the design.

Fuel Storage Facilities (Bulk and Drums)

	Closure Criteria
Execute civil works to transport potential hydrocarbon contaminated soil from Milne Inlet non-bulk fuel farm lined containment areas	Engineering retained to establish remediation criteria, land farm design & civil works plan and operations manual. Closure criteria to be established as part of the design.
Recontour surface	<ol style="list-style-type: none"><li>1. Recontour and regrade to approximate the surrounding topography as closely as possible to enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.</li><li>2. Restoration of the pre-disturbance surface water regime, if appropriate.</li><li>3. The area is at grade with no surface water flow - No other method of erosion control is required in this area</li><li>4. Natural revegetation of disturbed areas is the preferred method given the latitude of the project.</li></ol>

# Explosives

Total	Closure Criteria
Prepare explosives for shipping	All explosives products safely disposed or removed
Ship explosives to Milne Inlet	N/A
Ship explosives via land to Milne Inlet	All explosives products safely disposed or removed

# Waste Management

	Closure Criteria
GRAND TOTAL	
Operate Landfill	
Construct Access Road to Landfill including haulage	<p>Permanent abandonment of gravel roads generally entails leaving the existing roads and road bed alignments in place. However, the rights-of-way must be reclaimed in a manner that ensures landforms are compatible with the surrounding landscape and where required to achieve a stable post-reclamation configuration.</p> <ol style="list-style-type: none"><li>1. All drainage and crossing structures on the roads to be removed completely and areas reclaimed, including the stabilization of stream banks where required.</li><li>2. Complete removal of crossing structure abutments</li><li>3. Application of rip rap in areas of high erosion potential where slope &amp; grade controls are inadequate for erosion control</li><li>4. Contouring &amp; grading of roads with cross falls to minimize erosion.</li><li>5. Roadblocks to prevent vehicular access, where, upon removal of drainage &amp; crossing structures or other earthworks, a hazard would exist to motor vehicles</li></ol>
Expand Landfill Berms including haulage	<p>Landfill constructed according to approved engineering drawings and approved regulatory permits. Landfill operated and closed out in compliance with regulatory permit.</p>



# Waste Management

	Closure Criteria
Borrow Haulage required for operation of land fill to capacity	Landfill operated and closed out in compliance with regulatory permit.
Borrow Haulage required for capping landfill	Landfill operated and closed out in compliance with regulatory permit.
<b>Ship waste by land Mary River to Milne Inlet</b>	
Prepare chemicals for shipping	All hazardous materials and chemicals requiring treatment or disposal off site are prepared and packaged for shipment in compliance with the requirements of the Transportation of Dangerous Goods Act.

# Waste Management

	Closure Criteria
Disposal cost of hazardous material in the South (except bulk contaminated soil)	All hazardous materials & chemicals are to be backhauled by sealift to Montreal and then to approved recycling or disposal facilities in the south.
Sewage - Mary River	
Decant sewage lagoons	Discharge sewage lagoon liquor in compliance with regulatory permits
Sludge removal & transfer to landfill	Sludge disposed in compliance with regulatory permits.

# Waste Management

	Closure Criteria
Liner removal & berm reclamation	1. Recycle clean fill for use on other reclamation tasks. 2. Backfill and grade all remaining excavations to existing natural contours.
Liner disposal	Liner disposed in landfill in compliance with regulatory permit requirements
Sewage - Milne	
Decant sewage lagoons	Discharge sewage lagoon liquor in compliance with regulatory permits
Sludge removal & transfer to landfill	Sludge disposed in compliance with regulatory permits.

# Waste Management

	Closure Criteria
Liner removal & berm reclamation	<div>1. Recycle clean fill for use on other reclamation tasks.</div> <div>2. Backfill and grade all remaining excavations to existing natural contours.</div>
Liner disposal	Liner disposed in landfill in compliance with regulatory permit requirements

# Hydrocarbon Impacted Soil

		Closure Criteria
	Total	
	Complete phase 1 to phase 3 environmental assessment to identify hydrocarbon contaminated soil and to develop soil remediation criteria and land farm design	Engineering services to support the execution of the A & R plan. Criteria to be established as part of design.
	Land farm Operation Yr 3	
	Milne Inlet - Till hydrocarbon impacted soil - Land farm operation	Engineering retained to develop closure criteria as part of design.

# Hydrocarbon Impacted Soil

	Closure Criteria
food & accommodations	Logistics & operations services to support execution of A & R plan
Year 4-6 commercial flights for labour	Transportation services to support execution of A & R plan
Fixed wing support (note: equip hrs refer to statute miles)	Transportation services to support execution of A & R plan
Third Party Consultant to monitor and support land farm operations	Contract service to determine if land farm operation meets the closure criteria to be established byengineering design
Land farm Operation Yr 4	

# Hydrocarbon Impacted Soil

	Closure Criteria
Milne Inlet - Till hydrocarbon impacted soil - Land farm operation	Engineering retained to develop closure criteria as part of design.
food & accommodations	Logistics & operations services to support execution of A & R plan
Year 4-6 commercial flights for labour	Transportation services to support execution of A & R plan
Fixed wing support (note: equip hrs refer to statute miles)	Transportation services to support execution of A & R plan

# Hydrocarbon Impacted Soil

	Closure Criteria
Third Party Consultant to monitor and support land farm operations	Contract service to determine if land farm operation meets the closure criteria to be established by engineering design
Land farm Operation Yr 5	
Milne Inlet - Till hydrocarbon impacted soil	Engineering retained to develop closure criteria as part of design.
food & accommodations	Logistics & operations services to support execution of A & R plan



# Hydrocarbon Impacted Soil

	Closure Criteria
Year 5 commercial flights for labour	Transportation services to support execution of A & R plan
Fixed wing support (note: equip hrs refer to statute miles)	Transportation services to support execution of A & R plan
Third Party Consultant to verify site land farm cleanup progress	Contract service to determine if land farm operation meets the closure criteria to be established by engineering design
Land farm Operation Yr 6	
Milne Inlet - Till hydrocarbon impacted soil	Engineering design to develop closure criteria

# Hydrocarbon Impacted Soil

	Closure Criteria
food & accommodations	Logistics & operations services to support execution of A & R plan
Year 5 commercial flights for labour	Transportation services to support execution of A & R plan
Fixed wing support (note: equip hrs refer to statute miles)	Transportation services to support execution of A & R plan
Third Party Consultant to verify site land farm cleanup progress	Contract service to determine if land farm operation meets the closure criteria to be established by engineering design

# General Site Area

	Closure Criteria
Total	
Project Management & Supervision Year 2	
Third party Contractor - Admin & supervisory staff	Contract services so support execution of the A & R plan
Project Management Supervision	Baffinland site supervision to support execution of the A & R plan
Project Management & Supervision Year 3	
Third party Contractor - Admin & supervisory staff	Contract services so support execution of the A & R plan
Project Management Supervision	Baffinland site supervision to support execution of the A & R plan
Project Management & Supervision Year 4	

# General Site Area

	Closure Criteria
Third party Contractor - Admin & supervisory staff	Contract services so support execution of the A & R plan
Project Management Supervision	Baffinland site supervision to support execution of the A & R plan

# Sealift Materials

Closure Criteria	
GRAND TOTAL	
Freight Sealift Milne Inlet to Montreal Year 2	
Shipment, loading and off loading	
Land freight for 3rd party A&R contractor equipment and supplies from mobilization location to port in Montreal (Year 2)	
Dedicated Charter Freight Sealift of 3rd party contractor equipment and supplies to Milne Inlet, and to demobilize contractor equipment currently located at MR and MI,	

# Sealift Materials

	Closure Criteria
Demobilize by sealift site contractor and specified BIM equipment currently located at MR and MI,	
Land freight for site contractor and BIM owned equipment currently located at MR and Milne Inlet	
<b>Freight Sealift Milne Inlet to Montreal Year 3</b>	
Dedicated Charter Freight Sealift for supply of year 4 material & supplies, and for the backhaul of MI Tote Road Culverts and remaining material and 3rd party contractor equipment from M	
<b>Freight Sealift Milne Inlet to Montreal Year 4</b>	
Shipment, loading and off loading	
Land freight for material & supplies from mobilization location to Port of Valleyfield	

# Sealift Materials

	Closure Criteria
Dedicated Charter Freight Sealift for supply of year 5 & 6 material & supplies.	Transportation services to support execution of A & R plan
Demobilize decommissioned material and 3rd party contractor equipment from MI	
Land freight for decommissioned material and equipment from Port of Valleyfield	
Bulk Fuel Demobilization Sealift - Milne Inlet Year 2	

# Sealift Materials

	Closure Criteria
Dedicated charter - Bulk Fuel Tanker to backhaul bulk fuel to refinery for disposal	
Salvage of Baffinland owned fuel	
<b>Demobilize Freight Sealift Steensby Port to Port of Valleyfield - Year 3</b>	
Shipment, loading and off loading	
Vessel Costs Steensby - 1 freight backhaul sealift in Year 3	



# Sealift Materials

	Closure Criteria
Land Freight	
Freight Sealift Milne Inlet to Port of Valleyfield Year 6	
Shipment, loading and off loading	
Vessel & stevedoring costs for backhaul of land farm timer, tilling equipment (i.e. loader with tiller drag), accommodation trailer and residual Milne Inlet camp & support supplies and equipment. Milne Inlet to Port of Valleyfield	Transportation services to support execution of A & R plan

# Sealift Materials

	Closure Criteria
Land freight cost for Year 6 backhaul sealift	Transportation services to support execution of A & R plan

# Camp Operations

	Closure Criteria
GRAND TOTAL	
A&R Fuel Purchase	
Cash cost of fuel & barrel deposit	Material purchase to support execution of A&R plan
Hercules Aircraft mobilization from Yellowknife to Mary River	Transportation services to support execution of A & R plan

# Camp Operations

	Closure Criteria
Mary River Camp Operation Yr 2	
Helicopter support	Transportation services to support execution of A & R plan

# Camp Operations

	Closure Criteria
Fixed wing Charter Support	Transportation services to support execution of A & R plan
Commercial flights for25 person camp (MR & MI)	Transportation services to support execution of A & R plan
21 person camp operation	Logistics and operation to support execution of A & R plan

# Camp Operations

	Closure Criteria
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
Mary River Camp Operation Yr 3	

# Camp Operations

	Closure Criteria
Helicopter support	Transportation services to support execution of A & R plan
Fixed wing support (note: units under Equip Hrs refers to statue miles)	Transportation services to support execution of A & R plan

# Camp Operations

	Closure Criteria
Commercial flights for 29 person camp (MR & MI)	Transportation services to support execution of A & R plan
29 person camp operation	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
Steensby Inlet Camp Operation	



# Camp Operations

	Closure Criteria
6 person camp operation - Decommissioning	Logistics and operation to support execution of A & R plan
2 person camp operation - Sealift	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
Milne Inlet Year 2- Operate avg 5 - person camp (16 person peak for 2 weeks)	

# Camp Operations

	Closure Criteria
6 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
<b>Milne Inlet Year 3 - Operate avg 5 - person camp</b>	
6 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan

# Camp Operations

	Closure Criteria
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan
<b>Milne Inlet Year 4 - Operate avg 14 person camp</b>	
14 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan

# Camp Operations

	Closure Criteria
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Fixed wing support (note: units under Equip Hrs refers to statue miles)	Transportation services to support execution of A & R plan
Commercial flights for Milne Inlet camp	Transportation services to support execution of A & R plan

# Camp Operations

	Closure Criteria
Food	Logistics and operation to support execution of A & R plan
MidRail - Operate 7-person camp	
6 person camp operation (Support Labour)	Logistics and operation to support execution of A & R plan
Camp Operating Overhead	Logistics and operation to support execution of A & R plan
Food	Logistics and operation to support execution of A & R plan

# Environmental Monitoring

	Closure Criteria
Total	One annual site visit is undertaken for 5 years and remedial measures are undertaken as required
Environmental supervision & reporting during ongoing monitoring	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Environmental Monitoring Year 2	
Annual site visits - preparation/consumables	
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	

# Environmental Monitoring

	Closure Criteria
Annual site visit - site overview	
commercial flights for labour	Transportation services to support execution of A & R plan
Annual site visit - helicopter support	Transportation services to support execution of A & R plan
Environmental Monitoring Year 3	
Annual site visits - preparation/consumables	N/A - off site logistics support

# Environmental Monitoring

	Closure Criteria
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Annual site visit - site overview	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan
Annual site visit - helicopter support	Transportation services to support execution of A & R plan
Environmental Monitoring Year 4	



# Environmental Monitoring

	Closure Criteria
Annual site visits - preparation/consumables	N/A - off site logistics support
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Annual site visit - site overview	
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan

# Environmental Monitoring

	Closure Criteria
Annual site visit - helicopter support	Transportation services to support execution of A & R plan
Environmental Monitoring Year 5	
Annual site visits - preparation/consumables	N/A - off site logistics support
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Annual site visit - site overview	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout

# Environmental Monitoring

	Closure Criteria
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan
Annual site visit - helicopter support	Transportation services to support execution of A & R plan
Environmental Monitoring Year 6	
Annual site visits - preparation/consumables	N/A - off site logistics support

# Environmental Monitoring

	Closure Criteria
Annual site visits - water sampling (note: units under Equip Hrs refers to # samples)	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Annual site visit - site overview	Evaluation to determine whether physical and chemical objectives & closure criteria meet the criteria established by this A & R plan for project closeout
Post 2011 commercial flights for labour	Transportation services to support execution of A & R plan
Annual site visit - helicopter support	Transportation services to support execution of A & R plan