

## Appendix A

**NWB Annual Report**

**Year being reported:** 2008 ▼

**License No:** 2BB-MRY0710 **Issued Date:** July 27, 2007  
**Expiry Date:** December 31, 2010

**Project Name:** Mary River Project

**Licensee:** Baffinland Iron Mines Corporation

**Mailing Address:**  
 Suite 1016, 120 Adelaide Street West  
 Toronto, Ontario  
 M5H 1T1

**Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):**

Baffinland Iron Mines Corporation

**General Background Information on the Project (\*optional):**

Refer to Section 1.0 of the 2008 Annual Report to the Nunavut Water Board (NWB)

**Licence Requirements: the licensee must provide the following information in accordance with**

Part B ▼ Select ▼

**A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.**

Water Source(s):	Various (refer to Section 2.1 of the 2008 Annual Report)	
Water Quantity:	60	Quantity Allowable Domestic (cu.m)
	Varies	Actual Quantity Used Domestic (cu.m)
	455	Quantity Allowable Drilling (cu.m)
	Varies	Total Quantity Used Drilling (cu.m)

**Waste Management and/or Disposal**

- ☒ Solid Waste Disposal
- ☒ Sewage
- ☒ Drill Waste
- ☒ Greywater
- ☒ Hazardous
- ☐ Other:

**Additional Details:**

Refer to Section 2.0 of the 2008 Annual Report to the NWB

**A list of unauthorized discharges and a summary of follow-up actions taken.**

Spill No.: See Table 6.1 (as reported to the Spill Hot-line)  
 Date of Spill: See Table 6.1  
 Date of Notification to an Inspector: See Table 6.1  
 Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

See Table 6.1 and Section 6.0 of the 2008 Annual Report to the NWB.

### Revisions to the Spill Contingency Plan

SCP addendum attached for Board consideration ▼

Additional Details:

Refer to the Summary Table which accompanies the revised Spill Contingency Plan in Appendix H-E2

### Revisions to the Abandonment and Restoration Plan

AR addendum attached for Board consideration ▼

Additional Details:

Refer to the Summary Table which accompanies the revised Abandonment and Reclamation Plan in Appendix H-E1

### Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

See Section 9.0 of the 2008 Annual Report to the NWB.

### Results of the Monitoring Program including:

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;**

Details attached ▼

Additional Details:

Refer to Tables 1.4 to 1.7 of the 2008 Annual Report to the NWB.

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;**

Details attached ▼

Additional Details:

Refer to Tables 1.4 to 1.7 and Table 2.3 of the 2008 Annual Report to the NWB.

**Results of any additional sampling and/or analysis that was requested by an Inspector**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (date of request, analysis of results, data attached, etc)

--

**Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

--

**Any responses or follow-up actions on inspection/compliance reports**

Compliance Report received by the Licensee (Date): ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

See Appendix E of the 2008 Annual Report to the NWB for the INAC Inspector's Directive and subsequent responses by BIM.

**Any additional comments or information for the Board to consider**

The 2008 Annual Report provides further details on water use and waste disposal, construction activities, geochemical analysis of core, fuel storage, unauthorized discharges, updates to plans, progressive reclamation work and consultations.

**Date Submitted:**

March 31, 2009

**Submitted/Prepared by:**

Jim Millard

**Contact Information:**

**Tel:** 403-450-8843

**Fax:** 403-451-0513

**email:** [jim.millard@baffinland.com](mailto:jim.millard@baffinland.com)



## **Appendix B**



October 27, 2008

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119, Gjoa Haven NU X0B 1J0

Dear Ms. Beaulieu:

**Re: Baffinland Iron Mines Corporation (BIMC); Submission of an Addendum to the Landfill Site Design Report for the Mary River Project.**  
**NWB File: 2BB-MRY0710/Part D19**

On September 10, 2008, Baffinland Iron Mines Corporation (BIM) received a letter from the Nunavut Water Board (NWB) approving the above referenced design report dated November 13, 2007. In the same letter, a request was made of BIM that either an addendum be submitted that addresses review comments received from the NWB, the Qikiqtani Inuit Association (QIA)<sup>1</sup>, Environment Canada (EC)<sup>2</sup> and Indian and Northern Affairs Canada (INAC)<sup>3</sup> or that a revised report addressing the review comments be submitted.

It should be noted that a revised Landfill Design Report (Rev 1)<sup>4</sup> was submitted to the NWB on March 31, 2008, as an appendix to the annual Water Licence 2BB-MRY0710 report package. Furthermore, this revised report addressed many of the review comments submitted by the NWB, QIA, EC, and INAC. The main difference between the November 13, 2007 and March 31, 2008, versions of the Landfill Design Reports (Revisions 0 and 1, respectively), is that the latter revision included a section entitled: Section 5.0 - Operations and Maintenance Manual. Revision 0 (the approved design report) did not include an operations/maintenance section. Revision 1 also included additional referencing to guidelines and other documents.

To address the aforementioned request in the NWB September 10 letter for an addendum, BIM attaches, herewith, the following documentation:

- 1) Attachment A: Response to reviewers' comments - This portion of the information package provides BIM's responses to comments received from the NWB, QIA, EC, and INAC.

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<sup>1</sup> Letter from John Amagoalik, Qikiqtani Inuit Association, to Phyllis Beaulieu, Nunavut Water Board. Subject: Mary River Project, 2BB-MRY0710, Landfill Site Design. Dated: February 13, 2008.

<sup>2</sup> Letter from Mark Dahl, Environment Canada, to Richard Dwyer, Nunavut Water Board. Subject: 2BBMRY0710 Bulk Sampling Program Landfill Design Report. Dated: February 04, 2008.

<sup>3</sup> Letter from David W. Abernethy, Indian and Northern Affairs, to Richard Dwyer, Nunavut Water Board. Subject: 2BB-MRY0710, Baffinland Iron Mines Corporation, Qikiqtani Region, Landfill Site Design Report. Dated: Monday, June 23, 2008

<sup>4</sup> Baffinland Iron Mines Corporation, Mary River Project Bulk Sampling Program, Landfill Design and Operations (Reference No. NB102-00181/10-6).

**Baffinland Iron Mines Corporation**

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- 2) Attachment B: BIM Mary River Project Bulk Sampling Program, Landfill Design and Operations (Reference No. NB102-00181/10-6). This document is taken from Appendix F5 of the March 31, 2008, Water Licence annual report submission.
- 3) Attachment C: Ferguson, Simek Clark Engineers & Architects, 2003. Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories. April 21, 2003. Yellowknife, Northwest Territories.

We trust that this submittal satisfies your current requirements. Should you have any questions, please do not hesitate to contact Cheryl Wray or Jim Millard, Environmental Superintendents at 403-450-8843 or by e-mail at [cheryl.wray@baffinland.com](mailto:cheryl.wray@baffinland.com) or [jim.millard@baffinland.com](mailto:jim.millard@baffinland.com).

Best Regards,

**Baffinland Iron Mines Corporation**

Jim Millard  
Environmental Superintendent

cc.  
John Amagoalik, QIA  
Deon Bridge, NWB  
Mark Dahl, Environment Canada  
David W. Abernethy, Andrew Keim, INAC  
David Putnam, BIM

Attach: Attachment A - Response to Reviewers' Comments  
Attachment B – March 2008 Landfill Design and Operations Report  
Attachment C - Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories. April 21, 2003

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**ATTACHMENT A**  
**Response to Reviewers' Comments**

## 1.0 QIKIQTANI INUIT ASSOCIATION (QIA) REVIEW COMMENTS

1. QIA Comment: QIA was unable to obtain a copy of "Guidelines for the Planning, Design, Operations and Maintenance of Modified Waste Sites in the Northwest Territories" (Guidelines). Thus, QIA requests a copy of these Guidelines are submitted to the NWB and included in the file on the FTP-site.  
BIM Response: A copy of the Landfill Guidelines was included in our March 31, 2008, Water Licence annual report submission to the NWB. A copy of the guidelines is also attached to this information response.
2. QIA Comment: Though it is clear the above mentioned Guidelines were used to develop the Design it is unclear which sections of the Guidelines were considered. Extending further, QIA requests the proponent clearly state the source document, section and page number when cross referencing other documents. In reading the Design it is clear numerous documents have been referenced, directly and indirectly. Thus, adding reference information would clarify for the reader how the proponent draws their conclusions.  
BIM Response: The guidelines<sup>1</sup> and other documents were referenced heavily in our March 31, 2008, Water Licence annual report submission to the NWB and is attached.
3. QIA Comment: The Design states the current active layer thickness on the proposed landfill site is 1m. The document then goes on to state the final cover for the landfill will be 1.5m. QIA requests to know what other considerations were given to determine the depth of the final cover. Furthermore, QIA request to know if the proponent has considered installing thermistors for the landfill. Does the proponent agree that thermistor data could be used during the monitoring stage of the project prior to cessation of post-closure inspections?  
BIM Response: The depth of the final cover was based on typical active layer thicknesses measured elsewhere on the Site. A thermistor installation was not considered for the landfill as the inert waste is not expected to alter the ground temperature significantly. A thermistor installed in 2007 near the proposed landfill site for the proposed railway provides information which will be useful for the landfill site. That being said, BIM is not adverse to considering installation and monitoring of a thermistor in the landfill as part of post closure inspection should the need arise.
4. QIA Comment: QIA requests a landfill specific Monitoring Station is added to the list found under Part I Section 2 of 2BB-MRY0710.  
BIM Response: Regarding the site specific monitoring station, seepage monitoring locations for the landfill site are discussed in Section 5.0 of the March 31/08 report submission. BIM will work with the INAC Water Resource Officer to establish a downstream landfill surface water monitoring location if warranted.
5. QIA Comment: QIA requests the proponent file an Operations and Maintenance (O&M) Manual within ninety (90) days of the approval of the landfill design.  
BIM Response: An O&M manual was provided as part of the March 31, 2008, Water Licence annual report submission. The O&M manual is presented in Attachment B.

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<sup>1</sup> Ferguson, Simek Clark Engineers & Architects, 2003. Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories. April 21, 2003. Yellowknife, Northwest Territories.

6. QIA Comment: QIA requests that final as-built designs, signed by a qualified professional are submitted to the NWB within ninety 90 days of completion.  
BIM Response: QIA will be provided with the same as-built documentation that is specified in our Water Licence and submitted to the NWB within 90 days of facility completion.

## **2.0 ENVIRONMENT CANADA (EC) REVIEW COMMENTS**

7. EC Comment: The Proponent notes that a permanent land fill site is required but then proposes to build a temporary facility. Environment Canada recommends that any facility constructed for the bulk sampling program be sited and constructed with sufficient capacity to be used for the longer term Mary River mine should it ever be built.  
BIM Response: The landfill will be constructed with sufficient capacity for expansion as required.
8. EC Comment: The Proponent discusses monitoring at various points during the Report but there is no discussion of how the monitoring data would be used to manage the land fill. Environment Canada recommends that the Proponent provide information on how the monitoring data will be used to inform site management decisions.  
BIM Response: Section 5.4.8 of the O&M manual states that Management will review records of routine inspections and monitoring to ensure the Operator is fulfilling obligations. In the event any items of note are identified, BIM will take further action in the form of additional monitoring or appropriate corrective action.
9. EC Comment: In section 2.7 the Proponent states that “In coarser overburden with limited organic cover, the thickness of the active layer is anticipated to vary between 1.5 and 2.5 m based on a review of preliminary thermistor data collected in 2007.” The Proponent then goes on to state in section 3.3 that “In order to achieve permafrost encapsulation in the landfill site, the final cover will be thicker than the active layer. Based on an active layer approximately 1 m thick, the final cover will be 1.5 m thick.” Given that the aim is for permafrost to encapsulate the material and that the active layer is potentially 2.5 meters deep it is unclear why then the final cover on closure would be limited to 1.5 meters. Environment Canada requests clarification of this apparent contradiction.  
BIM Response: This is explained in Section 2.7 of the attached report (refer to Appendix B).
10. EC Comment: In Section 3.5 the Proponent states that “If it is determined that fencing is required, a temporary snow fence will be installed for operations.” It is unclear what criteria will be used to determine if fencing is required. Snow fence is designed to generate snow drifts, in the arctic changes to the snow pack can result in impacts on the underlying permafrost. Environment Canada requests that the proponent describe what criteria will be used to determine if fencing is required and recommends that, should fencing be necessary, the appropriate type be utilized.  
BIM Response: Drifting of snow in the arctic environment can present major challenges to operating a facility such as a landfill. The installation of snow fences can reduce the reliance on snow removal activities and allow for improved access and operations for the landfill. The development of snow drifts downwind of infrastructure is commonplace throughout the arctic. BIM considers that snow drifting due to project infrastructure to be a negligible concern for the Mary River Project as related to potential permafrost degradation. It is BIM’s intention to install landfill fencing as required and appropriate to encountered conditions.

11. EC Comment: In Section 5.1 the Proponent indicates that an operations and Maintenance Manual will be completed. Environment Canada requests the opportunity to review/comment on the document prior to site operations.  
BIM Response: An operations and maintenance manual was included as Section 5.0 of the March 31, 2008, Water Licence annual report submission to the NWB. This report is attached (refer to Attachment B).
12. EC Comment: In Section 5.3.5 the Proponent states that “It is expected that the active layer will progress into the landfill waste and cover material” however the proponent only plans to monitor ground warming by observing visual cues such as soil creep. Environment Canada suggests that the proponent utilize a more sensitive method of assessing soil temperature such as thermistors so that any problems can be detected early and remedial action taken.  
BIM Response: See BIM response to QIA Response No. 3.
13. EC Comment: The Proponent states that the waste will be inert and thus not be an attractant for wildlife. All project personnel should receive training on proper waste management to ensure that no food wastes and other wildlife attractants inadvertently end up in the landfill.  
BIM Response: Training will be provided to all personnel as stated in the Operations and Maintenance Manual presented in Section 5.2.1 of Attachment B.
14. EC Comment: The Proponent does not view prevention of windblown debris as an issue because waste will either be too heavy to blow away (i.e. scrap steel) or will consist of ashes that will be placed into containers prior to being brought to the landfill site. However, the Proponent should be careful to not underestimate the strength of the wind in the Arctic. It is not unusual to have winds in the Arctic that exceed 50 km/hr and severe wind-storms with even greater wind speeds. Wind gusts can exceed 100km/hr. The Proponent should ensure that waste is either heavy enough or secure enough to withstand any extreme wind storms than might occur in the area. For example, containers with ash should be a minimum size and filled to a minimum level to ensure they do not blow away in a wind storm.  
BIM Response: BIM shares EC’s concern about the potential for windblown debris and will implement required actions to minimize the potential for windblown debris.

### **3.0 DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS CANADA (INAC) REVIEW COMMENTS**

15. INAC Comment: The Licensee should submit a stand-alone Operations and Maintenance Plan specific to the proposed Bulk Sampling Program Landfill Site. This Plan should be prepared in accordance with the *Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, 1996*, as specified in Part D, Item 19 of the 2BB-MRY0710 licence.  
BIM Response: The requested Operations and Maintenance Plan was submitted on March 31, 2008, as an appendix within the Water Licence annual report. This document is provided in Attachment B of the submission herein.
16. INAC Comment: A surveillance network program (SNP) site should be established to collect runoff from the proposed non-hazardous waste landfill for water quality data analysis, should it be constructed. The INAC Inspector and the proponent should discuss the final selection of the SNP location(s) and inform the Board. This site should be sampled monthly during periods of observed flow and include the following sample parameters: BOD5, pH

Conductivity, Total Suspended Solids, Ammonia, Total Nitrogen Total Nickel, Nitrate-Nitrite, Oil and Grease, Total Phenols, Total Alkalinity, Total Hardness, Calcium, Magnesium, Potassium, Sodium, Sulphate, Total Arsenic, Total Cadmium, Total Copper, Total Chromium, Total Iron, and Total Lead.

BIM Response: BIM will work with the INAC Inspector on this matter.

17. INAC Comment: INAC understands that the Licensee must provide as-built plans and drawings, stamped and sealed by a professional engineer registered in Nunavut, within ninety (90) days of completion of all constructed works, such as the proposed non-hazardous waste landfill. This is in accordance with Part J, Item 4 of the 2BB-MRY0710 licence.

BIM Response: No response required.

#### **4.0\_NUNAVUT WATER BOARD (NWB) REVIEW COMMENTS**

18. NWB Comment: BIM should respond to all issues raised by INAC, EC and the QIA in their submitted comments.

BIM Response: See above responses.

19. NWB Comment: A detailed discussion on how the drainage creek located on the proposed site of the landfill (which can be seen on the reference drawing entitled "Site General Arrangement") will be dealt with such that the landfill stability will be maintained and leachate from the landfill will not reach the stream/creek.

BIM Response: The area in question drains to Sheardown Lake - drainage will be directed around the landfill (to prevent contact of water and waste), and seepage/surface water monitoring will be undertaken. Drainages in the area are typically dry or frozen for most of the year. There are no anticipated stability issues associated with this infrastructure.

20. NWB Comment: A detailed plan for monitoring if leachate from the landfill is entering the surrounding environment and shall include the timing, location and parameters for sampling.

BIM Response: BIM will work with the inspector to ensure that the monitoring plan is adequate for the detection of leachate entering the receiving environment. This was discussed in comment no. 16.

21. NWB Comment: The proponent shall ensure that air blown debris from the landfill does not enter into waterways or otherwise impact water quality.

BIM Response: We are in agreement with this comment.

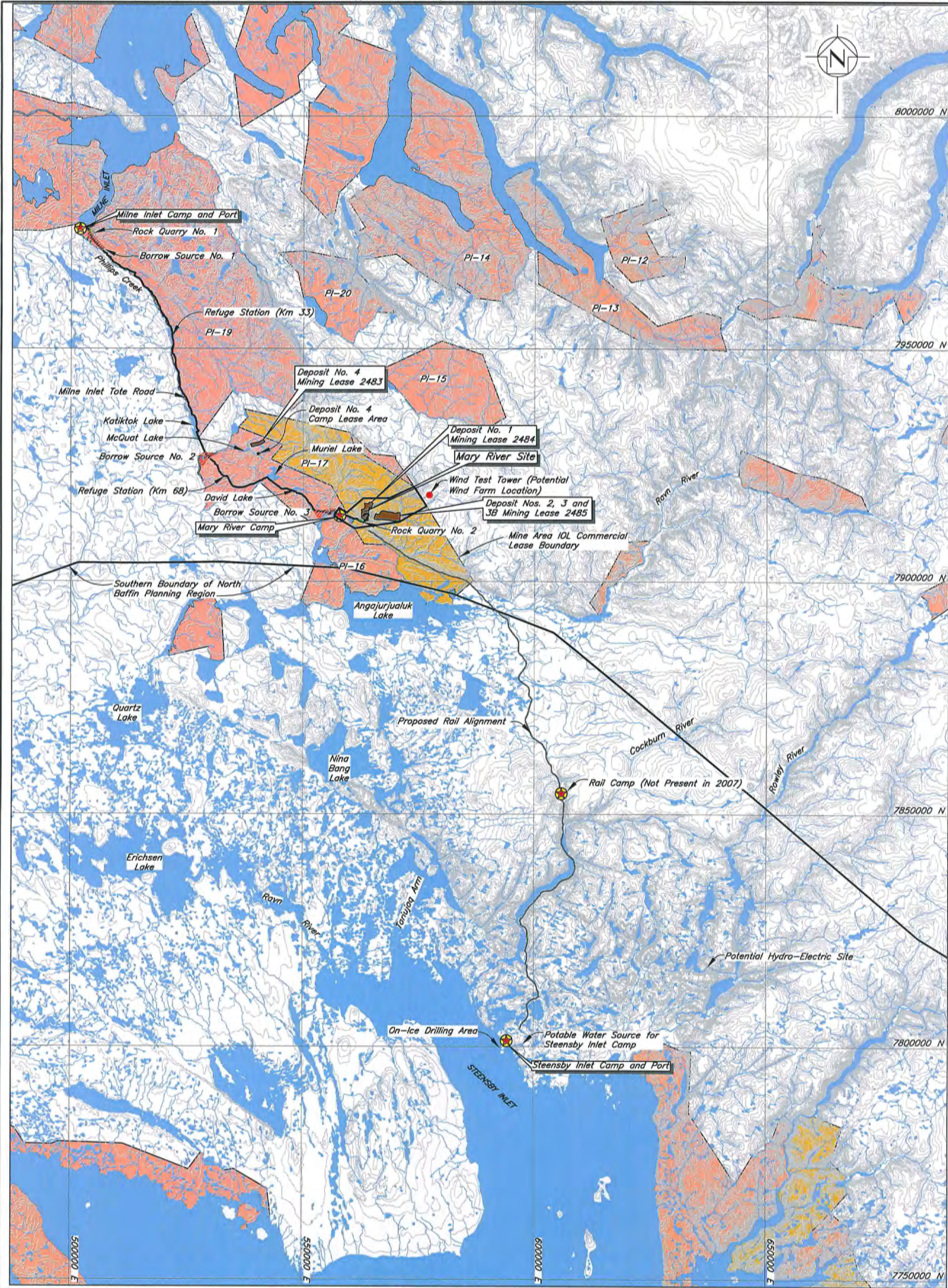
22. NWB Comment: A plan that identifies how ponding on the surface of the landfill and leachate run-off will be prevented.

BIM Response: This is discussed in Section 3.7.1 of the Landfill Design Report.

23. NWB Comment: Submission of a stand alone, site-specific Operation and Maintenance manual for the landfill including all the information specified in section 5.3 of the submitted Landfill Site Design Report.

BIM Response: An O&M report was submitted as Section 5 within the Landfill Design document submitted as an appendix within the Water Licence annual report submitted on March 31, 2008. This document is provided herein as Attachment B. At the NWB's request, BIM will submit Section 5.0 of this document as a stand alone report.





**LEGEND:**



- River/Stream/Drainage
- Milne Inlet Tote Road
- Proposed Rail Alignment
- Contour
- Water
- Inuit Owned Land-Surface Only Excluding Minerals
- Inuit Owned Land-Surface and Subsurface Including Minerals
- Mineral Lease Boundary
- Crown Land

- Existing Borrow Area (IOL Commercial Lease)
- Existing Rock Quarry (IOL Commercial Lease)

**NOTES:**

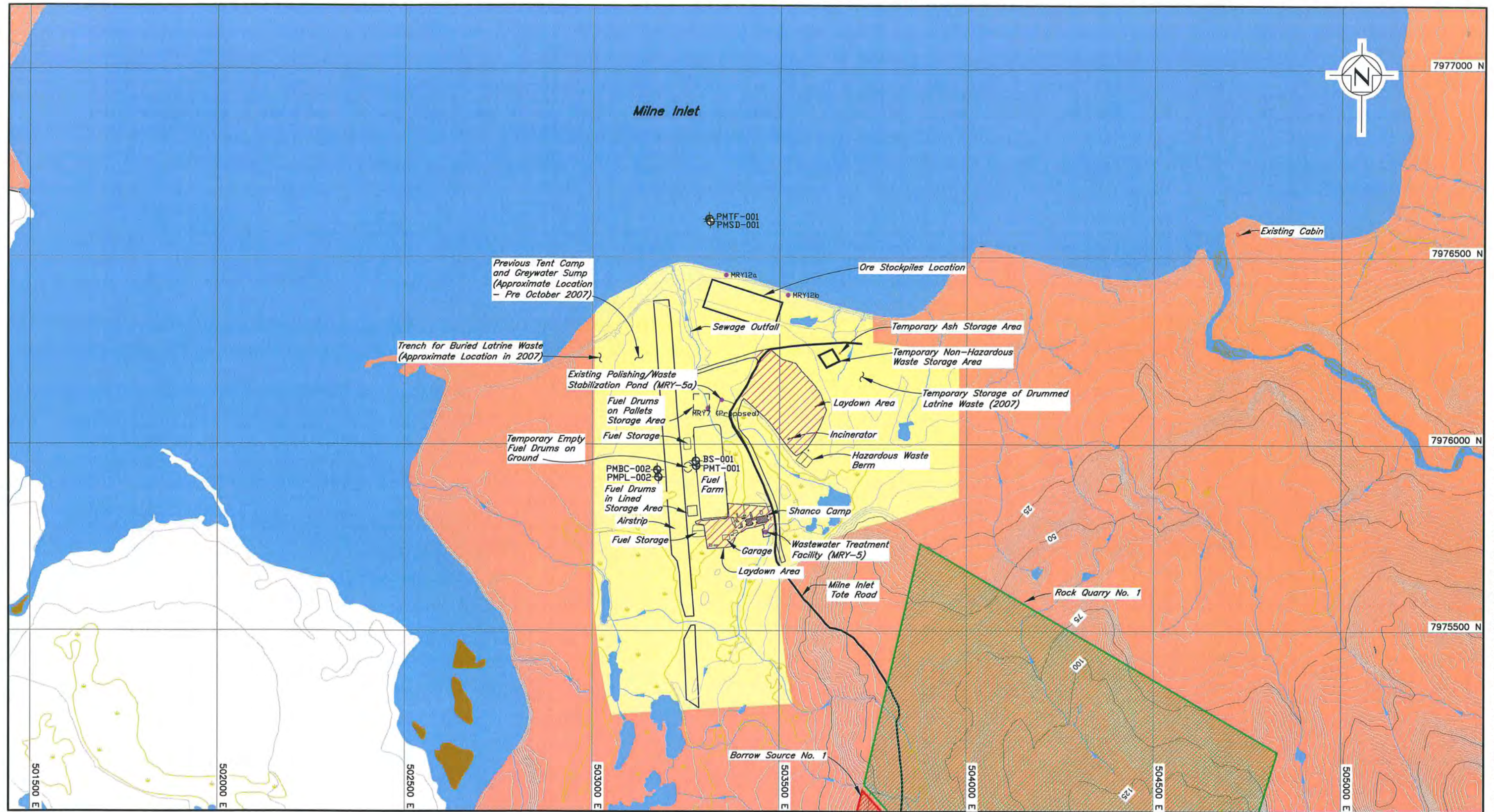
- Base Map: © Her Majesty the Queen in Rights of Canada, Department of Natural Resources (2004). All rights reserved.
- Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
- Contours are in metres. Contour interval varies.
- Proposed Rail Alignment provided by Canarail Consultants Inc. in late 2007.

10 5 0 10 20 30 40  
Scale Kilometres















 MARY RIVER PROJECT			
LOCATION OF PROJECT ACTIVITIES			
		P/A NO. NB102-00181/10	REV. 1
		REF. 0-	

**FIGURE 1.1**





**LEGEND:**

 Water	 Surface Rights Area (IOL Commercial Lease)	 Drillhole Completed in 2007
 Inuit Owned Land—Surface Only Excluding Minerals	 Existing Borrow Area (IOL Commercial Lease)	 River/Stream/Drainage
 Crown Land	 Existing Rock Quarry (IOL Commercial Lease)	 Direction of surface water runoff
 Laydown Area	 Wetland	 Milne Inlet Tote Road
		 Road
		 MRY-5 Water Licence Monitoring Location

**NOTES:**

1. Topography provided by Eagle Mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 2.5 metres.
4. Layout provided by BH Martin/Genivar and Baffinland (as of December 31, 2007).



			
MARY RIVER PROJECT			
MILNE INLET CAMP AND PORT LAYOUT			
		P/A NO. NB102-00181/10	REV. 6
		REV. 1	
FIGURE 1.2			











XREF FILE(S): 01\_Water Quality Coordinates; Southern Route Detailed Mapping; Lakes rail camp IMAGE FILE(S): Baffinland logo-bkg corp



**LEGEND:**

-  Water
-  Wetland
-  River/Stream/Drainage
-  Proposed Rail Alignment

**NOTES:**

1. Topography provided by Eagle mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 2.5 metres.
4. Proposed Rail Alignment provided by Canarail Consultants Inc. in late 2007.
5. Location of the proposed Rail Camp infrastructure is approximate and subject to field adjustment.



 MARY RIVER PROJECT			
RAIL CAMP PROPOSED CAMP LAYOUT			
		P/A NO. NB102-00181/10	REF. 6
FIGURE 1.4		REV. 1	

NORTH BAY ON. SAVED: I:\102-00181-10\Assignment\Map\Fig1.4.mxd PRINTED: 3/31/2008 9:52:19 AM Layout1: rjohnson

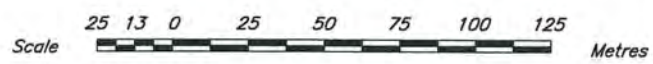


XREF FILE(S): PROPOSED 07 DRILLHOLES (AKEX)\_steensby STEENSBY\_2; ORE\_LOADING.DOCX; NO TEXT; Steensby User IMAGE FILE(S): Baffinland logo-big corp EngLogo



- LEGEND:**
- Water
  - Wetland
  - River/Stream/Drainage

- NOTES:**
1. ALS contour data was provided by Terrapoint (2006).
  2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
  3. Contours are in metres. Contour interval is 1.5 metres.
  4. No location details available for 2007 Steensby Inlet Camp with the exception of three existing tent structures including a kitchen/wash tent, an outhouse and two lined fuel storage areas, all infrastructure shown is proposed. Location of the proposed Steensby Inlet Camp infrastructure is approximate and subject to field adjustment.
  5. The camp will consist of either tents (ie. weatherhaven) or trailers (ie. Shanco style). A tent camp is shown.



MARY RIVER PROJECT			
STEENSBY INLET AREA PROPOSED CAMP LAYOUT			
		P/A NO. NB102-00181/10	REV. 6
		FIGURE 1.5	

NORTH BY ON. CREATED BY: bpaark. SAVED: E:\102-00181-10\Assignment\Assd\Fig1.5. 3/28/2008 4:09:05 PM. PRINTED: 3/28/2008 4:09:23 PM. Layout1: rjohnson



# Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the Northwest Territories

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by R. Kent, P. Marshall, and L. Hawke



# ***Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the NWT***

**Prepared for:**

The Department Municipal and Community Affairs  
Government of the Northwest Territories

**Prepared by:**

Ferguson Simek Clark  
Engineers & Architects  
4910 53<sup>rd</sup> Street  
Yellowknife, N.W.T.  
Canada, X1A 2P4

FSC Project No: 2001-1330

April 21, 2003

## **Forward**

This project serves to update the Guidelines for solid waste management in the Northwest Territories for the Government of the Northwest Territories Department of Municipal and Community Affairs.

The deliverables are in two separate reports: these guidelines and the background analysis report entitled *Updating the Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites in the NWT*.

For context and rationale of directives found in the guidelines, reference may be made in the background analysis report.



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# **1. INTRODUCTION**

---

## **1.1 PURPOSE**

This document is to guide planners, designers, operators and regulators of modified landfill facilities in the Northwest Territories.

The document is organized in sections based on the sequences taken when developing a new, or expanding an existing modified landfill facility. Each section provides technical information followed by the associated regulatory requirements.

## **1.2 GOALS**

These guidelines promote effectiveness and efficiency of municipal solid waste (MSW) management, thereby reducing the over-all cost of planning, design and operations and maintenance (O & M) of landfill facilities while ensuring the protection of public health and the environment.

These guidelines focus on objectives and principles rather than numerical limits. The latter are presented as recommended guides to summarize the available and current literature.

## **1.3 DEFINITION OF A MODIFIED LANDFILL**

Modified landfilling is a method of disposing solid waste on land in a manner that protects human health and the environment. Applying engineering principles, solid waste is confined to the smallest practical area, reduced to the smallest practical volume and covered routinely with a cost-effective layer of earth.

## **1.4 OPEN BURNING IS NOT ACCEPTABLE**

There are adverse health, safety and environmental risks from open burning as a method of waste control. Open burning of hazardous wastes will release toxic substances into the atmosphere, potentially causing immediate health and environmental effects. This may adversely affect fire-fighting efforts. These substances may also harm the local ecosystem.

Burning can also spread quickly beyond the initial area, becoming a much larger problem. Pressurized vessels, such as aerosol cans and propane tanks, are an explosion hazard and can become grenade-like projectiles.

Open burning of municipal solid waste is not acceptable, except for clean wood and paper.

When burning these specific materials, the wastes should be moved to an area separate from the working landfill. Permitting for burning is required from RWED. Burning should only be done on days with very light wind or no wind.

Reader are referred to the RWED website - <http://www.gov.nt.ca/RWED/eps/index.htm>

## **1.5 OBJECTIVES OF SOLID WASTE MANAGEMENT**

Communities should adopt the 3R's of solid waste management: reduce, reuse, and recycle. The objective of these activities is to divert as much waste from landfill as is appropriate to the opportunities that exist. To meet this objective, four major considerations must be addressed: public health and safety, environmental protection, costs and aesthetics.

### **1.5.1 PUBLIC HEALTH AND SAFETY**

Public health impacts may arise at all stages of solid waste management from collection to transport to disposal. The main concerns are (1) communicable diseases transmitted from human faecal wastes disposed via honey bags; (2) uncovered wastes promoting infestations of disease vectors (bacteria, insects, and rodents); and (3) the release of carcinogens and respiratory irritants from the incomplete combustion of open burning.

The *Public Health Act* (*Public Health*, R.S.N.W.T. 1988, c. p.12) and its *General Sanitation Regulations* (R.R.N.W.T. 1990, c. p.16) require that adequate solid waste facilities be provided and maintained so that there are no odours and no breeding of flies.

Regulations stipulate garbage containers to be provided and emptied regularly (Section 24) and facilities must be situated:

- £ · 90 metres from public roads, railways, right-of-ways, and cemeteries;
- £ · 450 metres from housing; and
- £ · A distance from water sources that ensures the protection of drinking water.

Enforcement of the Public Health Act is through the Chief Medical Health Officer and the appointed Medical Health Officers and Health Officers. Contravention of the Act and its regulations by landfill operators could result in an order to comply, which if refused may render the operator liable on conviction to a fine or imprisonment (Section 23).

Solid waste facilities may increase the risk to public safety by attracting birds. Flocks of birds in an area can pose a hazard for aircraft traveling in that same area. For this reason Transport Canada established a guideline separation distance of 8 kilometres between a modified landfill and an airport. However, this guideline is often not practical in the North, so an alternative guideline (*Establishing Guidelines for the Separation of Solid Waste Disposal Sites and Airports in the Northwest Territories* (Soberman, *et. al.* (1990)) allows for a minimum setback of 3 kilometres. The location of all new solid waste sites is subject to approval by the Transport Canada.

### 1.5.2 ENVIRONMENTAL PROTECTION

Proper siting, design, and maintenance and operations of modified landfill facilities are fundamental in minimizing the environmental impacts associated with solid waste disposal. Particular to the NWT are potential environmental impacts such as:

- £ · Surface water and groundwater contamination; and
- £ · Improperly stored hazardous wastes.

The Environmental Protection Services (EPS), Department of Resources, Wildlife and Economic Development (RWED), GNWT, administers the Environmental Protection Act (*Consolidation of Environmental Protection Act*. R.S.N.W.T. 1988, c. E-7) and various associated regulations and guidelines. This Act stipulates that contaminants may not be discharged to the environment (Section 5). The Act also contains provisions for permits and licences, in accordance with the regulations.

For copies of regulations and guidelines, readers are referred to the RWED website  
<http://www.gov.nt.ca/RWED/eps/index.htm>

With respect to solid waste facilities, the *Environmental Protection Act* is mainly concerned with hazardous wastes. EPS guidelines are available for specific substances such as waste solvents, antifreeze, asbestos, lead, lead-based paint, other paint and batteries. Hazardous waste receivers must be registered with EPS and follow the guidelines set out in the *Guideline for the General Management of Hazardous Waste in the NWT* (February 1998).

Of particular interest to solid waste disposal is the draft *Used Oil and Waste Fuel Management Regulations* (January 2000) which have provisions for used oil and waste fuel storage, incineration and discharge.

If an infraction is detected by an inspector, the solid waste operator may be issued an order to stop the discharge of a contaminant by a certain date (Section 6) or to repair, remedy any injury or damage to the environment (Section 7 (1)). Contravention of the Act by any person causing or contributing to the discharge, or the owner of the contaminant, may be found guilty and liable to a fine or imprisonment.

### 1.5.3 AESTHETICS

The aesthetics of modified landfills, namely foul odours and unsightly facilities, are a concern for the public. Solid waste facilities should be sited far enough away from a community such that odours are not regularly detected and the site is not visible by the residents. If possible, sites should be downwind of prevailing winds.

## 1.6 REGULATORY REQUIREMENTS

### 1.6.1 MACKENZIE VALLEY RESOURCE MANAGEMENT ACT

The advent of the Mackenzie Valley Resource Management Act and the various aboriginal/government co-management boards has vastly changed the regulatory environment in the NWT. Readers are referred to the appropriate board and website shown in Table 1.1.

**Table 1.1: List of Land and Water Boards**

Board	Website
Mackenzie Valley Land and Water Board	<a href="http://www.mvlwb.com">www.mvlwb.com</a>
Mackenzie Valley Environmental Impact Review Board	<a href="http://www.mveirb.nt.ca">www.mveirb.nt.ca</a>
Gwich'in Land and Water Board	<a href="http://www.glwb.com">www.glwb.com</a>
Gwich'in Land Use Planning Board	<a href="http://www.gwichinplanning.nt.ca">www.gwichinplanning.nt.ca</a>
Gwich'in Renewable Resources Board	<a href="http://www.grrb.nt.ca">www.grrb.nt.ca</a>
NWT Water Board	N/A
Sahtu Land and Water Board	<a href="http://www.slwb.com">www.slwb.com</a>
Sahtu Land Use Planning Board	<a href="http://www.sahtulanduseplan.com">www.sahtulanduseplan.com</a>

New landfill developments as well as significant changes to existing sites would trigger review by the appropriate Board. The *Mackenzie Valley Resource Management Act* replaces the *Canadian Environmental Assessment Act* in the Mackenzie Valley.

Proponents are advised to contact the appropriate jurisdiction in advance of planning or undertaking any work.

## 1.6.2 NWT WATER BOARD

The NWT Water Board retains responsibility for the Inuvialuit Settlement Region. New landfill developments as well as significant changes to existing sites would trigger a review.

As of March 9, 2000 the Government of Canada and the Environmental Impact Review Board (EIRB) for the Inuvialuit Settlement Region have outlined how the environmental assessment process of the EIRB under the Inuvialuit Final Agreement may be substituted for a panel review under the *Canadian Environmental Assessment Act*.

## 1.6.3 SUMMARY

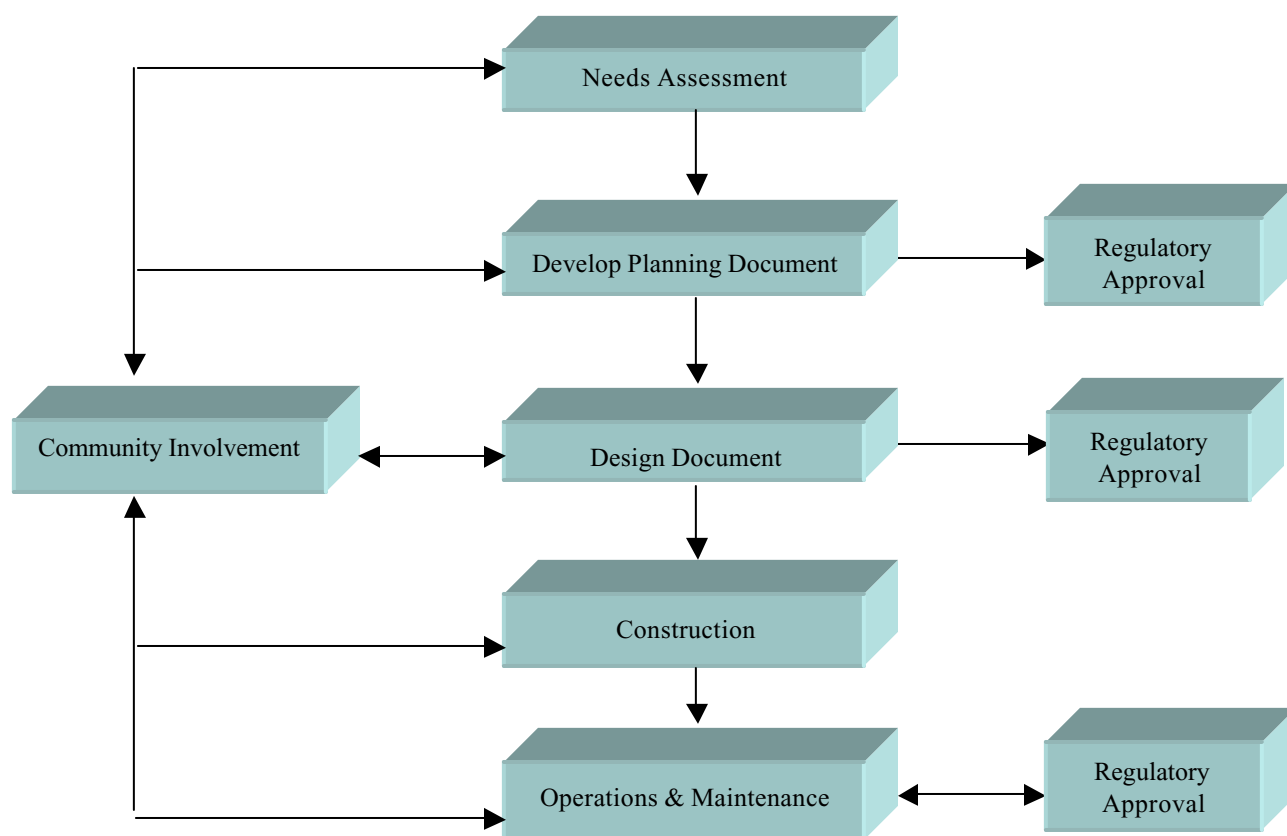
The applicable regulatory requirements are itemized in Table 1.2: Flow Chart 1.1 summarizes the regulatory process for siting and building a Solid Waste Facility.

**Table 1.2: General Regulatory Requirements Associated with Solid Waste Management**

Consideration	Acts, Regulations & Guidelines	Authority	Implication
<b>Disease</b>  Communicable diseases transmitted from human faecal wastes  Uncovered wastes promoting infestations of disease vectors  Carcinogens and respiratory irritants from open burning.	<i>Public Health Act</i>  <i>General Sanitation Regulations</i>	Health and Social Services:  Chief Medical Health Officer.  Medical Health Officer.  Health Officer.	Order to comply. If order is refused, liable to fine or imprisonment.
<b>Safety</b>  Public safety from hazard to aircraft.  Establishing Guidelines for the Separation of Solid Waste Disposal Sites and Airports in the Northwest Territories (Soberman, et al. 1990).	<i>Commissioner's Lands Act.</i>  <i>Air Regulations and Aeronautics Act.</i>  <i>Manual of Airport Bird Hazard Control AK-75-10-000.</i>	Transport Canada.  Municipal and Community Affairs (MACA).  Department of Transportation (DOT).	Siting recommendation: 3 km setback of solid waste facility from airport.

Consideration	Acts, Regulations & Guidelines	Authority	Implication
<b>Water Pollution</b> Surface water and groundwater contamination. Improperly stored hazardous wastes.	<i>Mackenzie Valley Resource Management Act.</i> <i>Northwest Territories Waters Act.</i>  <i>Environmental Protection Act.</i>  <i>Environmental Information Guide for Industrial Projects on Commissioner's Land.</i>	All Land and Water Boards. Department of Indian Affairs & Northern Development. Resources, Wildlife, and Economic Development (RWED).	Water Licence.  Enforcement of Water Licence.  For Acts and Regulations: Order to comply. If order is refused, liable to fine or imprisonment. For guidelines: Recommendations given.
<b>Air Pollution</b> Surface water and groundwater contamination.  Gas emissions from waste decomposition.  Emissions from open burning; and improperly stored hazardous wastes.	<i>Environmental Protection Act.</i>  <i>Guideline for the General Management of Hazardous Waste in the NWT.</i> <i>Used Oil and Waste Fuel Management Regulations.</i>	RWED.  Chief Environmental Protection Officer.  Inspector.	For Acts and Regulations: Order to comply. If order is refused, liable to fine or imprisonment. For guidelines: Recommendations given.
<b>Fire</b> Open burning at site.  Wildfires.	<i>NWT Fire Protection Act and Regulations.</i>  <i>Urban/Rural Wildfire Protection Guidelines.</i>	MACA / Office of the Fire Marshal.  RWED.	For Acts and Regulations: Order to comply. If order is refused, liable to fine or imprisonment. For guidelines: Recommendations given.





**Flow Chart 1.1: Summary of Process - To Plan, Build, Construct, Expand and Maintain a Solid Waste Facility**

## 2. PLANNING SOLID WASTE FACILITIES

---

### 2.1 GENERAL

Planning modified landfills involves an understanding of the current as well as future requirements of communities, and applying engineering principles to design adequate solid waste facilities. Such planning must consider the physical characteristics of solid wastes, siting considerations, surface and groundwater impacts, and projected population growth.

### 2.2 PHYSICAL CHARACTERISTICS OF SOLID WASTES

For planning purposes, waste volumes, densities, compaction rates and composition of solid waste must be determined for a given community. The following are recognized standards for these waste characteristics in the Northwest Territories. Other standards may be acceptable, but should be justified.

#### 2.2.1 VOLUME

Two community solid waste volume models (MACA, 1986) have been commonly used in the NWT: one to estimate uncompacted solid waste volume generation ( $m^3$ ) in any given year, and another for the planning horizon.

#### Total Community Solid Waste Volume ( $m^3$ ) in Any Year

$$\text{Volume}(\text{year}) = 365 V P_1 (1 + G) + 0.084 V P_1^2 (1 + G)^{2n}$$

#### Total Community Solid Waste Volume ( $m^3$ ) in a Planning Horizon

$$\text{Volume}(\text{horizon}) = \frac{365 V P_1}{\ln(1 + G)} [(1 + G)^{PH} - (1 + G)] + \frac{0.084 V P_1^2}{2 \ln(1 + G)} [(1 + G)^{2PH} - (1 + G)^2]$$

Where,  $V$  = average residential solid waste volume ( $m^3$ /person/day)

= 0.015  $m^3$ /person/day (FSC, 2000)

$P_n$  = population in  $n^{\text{th}}$  year (persons);  $P_1$  = population in current year (persons)

$G$  = average community population growth rate (persons/year)

$PH$  = planning horizon (years)

### 2.2.2 DENSITY

There is a wide range of municipal solid waste densities quoted in the literature. For the NWT, a density of 0.099 tonnes per cubic metre for uncompacted waste is acceptable. Other densities may be acceptable, but should be justified.

### 2.2.3 MATERIALS COMPOSITION

Solid wastes generated in NWT communities generally have the following composition shown in Table 2.1. Other wastes such as industrial, commercial, hazardous and bulky wastes must be estimated for each community.

**Table 2.1 NWT Typical Modified Landfill  
Waste Compositions (% by weight)**

Food Wastes	20.3
Cardboard	9.8
Newsprint	2.4
Other Paper Products	14.8
Cans	4.4
Other Metal Products	6.2
Plastic, Rubber, Leather	14.0
Glass, Ceramics	5.7
Textiles	3.8
Wood	9.9
Diapers	3.8
Dirt	4.9
	100.0

\* Details may not add to totals due to averaging and rounding.

### 2.2.4 INDUSTRIAL AND COMMERCIAL WASTES

The management of industrial and commercial wastes is usually the responsibility of the waste generator. It is often disposed at private facilities, and is covered under separate guidelines and/or Water Licence requirements.

Municipal landfills should not accept industrial and commercial waste unless it conforms with RWED's guidelines on discharge of industrial waste. Readers are referred to the RWED website - <http://www.gov.nt.ca/RWED/eps/index.htm>

### 2.2.5 HAZARDOUS AND BULKY WASTES

Table 2.2 lists examples of types hazardous and bulky wastes disposed at municipal solid waste facilities.

Household hazardous wastes may be an issue. Most small communities do not have the capacity or expertise to undertake the management of household hazardous wastes. Further, given the nature of many communities there may be insufficient volume of household hazardous wastes to warrant an aggressive diversion program. Communities entertaining such an issue should undertake an inventory of wastes before embarking on a program.

Readers are referred to the RWED website - <http://www.gov.nt.ca/RWED/eps/index.htm>

**Table 2.2 Examples of Bulky and Hazardous Wastes**

<b>Bulky Wastes</b>	<b>Hazardous Wastes</b>
Cars	Oil based Paint
Snowmobiles	Solvents
Appliances	Propane Tanks
Engines	Waste Oil
Tires	Batteries
Clean storage tanks	Oil barrels
	Electronic Equipment

### 2.2.6 COMPACTION RATES

The recommended compaction rate for a modified landfill is 3:1 (Heinke and Wong, 1990). In practice, this rate varies widely but is the minimum expected for compaction when following recommended operations practices.

## 2.3 PLANNING HORIZON

New landfills should be planned based on a 40 year planning horizon.

## 2.4 HONEY BAGS

Where honey bags are still in use, honey bags are to be disposed in a location separate from, and preferably inaccessible from, the salvage area(s).

For planning purposes, the residential generation rate for honey bags is estimated at 0.0015 m<sup>3</sup> per person/day.

## 2.5 COLLECTION FREQUENCY

The preferred collection frequency for municipal solid waste (MSW) is once every two weeks in the winter, once per week in the summer. Institutional and/or commercial collection frequency associated with MSW should be determined site-specifically.

Where honey bags are still in use the minimum acceptable collection frequency is five days per week with no more than two days between collections.

## 2.6 COLLECTION PRACTICES

Cost efficiencies can be realized through more efficient routing and municipal pickups.

Collection systems in northern areas are highly sensitive to local conditions, including terrain, seasonal variations in accessibility and community preferences. The interplay of these variables can result in different collection systems being developed in response to ostensibly similar conditions, and in this context it is not possible to produce a meaningful ‘recipe’ by which these systems can be designed. Despite this variability the following collection principles can be identified as having broad applicability throughout the Northwest Territories:

- £ · The design of an effective waste collection system must consider the size of community, proximity to neighbouring communities, and proximity to landfill;
- £ · The collection system may involve direct haul of waste from residences to landfill, or may include a transfer station where a central landfill is appropriate; and

- £ · Physical waste collection techniques will range from the use of small manual-load vehicles, to semi-automated or automated vehicles capable of handling both residential and commercial wastes.

Each waste collection system must meet technical and financial requirements as well as public preferences and priorities. Convenience to users and level-of-service issues typically play a large part in the selection of the preferred system, and these aspects of waste collection cannot be meaningfully generalized. Technical requirements are susceptible to local geographic conditions (e.g. presence of year-round access), however the following general principles may be used for guidance:

- £ · Waste collection equipment should be selected according to the length of waste haul, frequency of collection, and the types and quantities of waste to be collected;
- £ · In communities where each residence uses an individual garbage can, collection service will usually be most efficiently delivered by 1 tonne compactor-type vehicles;
- £ · In communities where it is feasible for individual bins to service several residences, collection service may be delivered by 3 tonne side loader type vehicles. In this case, 1.15 cubic metre bins would typically be shared between 2, 3 or 4 houses. Operating efficiencies can be achieved in this system, since in addition to being used in the residential sector, the 1.15 cubic metre bins are large enough to be used by many commercial outlets (stores, offices etc), and consequently a single vehicle can be used to collect waste from both residential and commercial collection points;
- £ · Where communities are less than 300 kilometres apart by an all-weather road (or more than 300 kilometres from a landfill), a transfer station may provide the opportunity for cost savings if regional landfills are considered; and
- £ · Small communities with less than 1,000 residences will typically be most efficiently serviced by simple bin-style transfer stations, in which the bins are coated to prevent freezing of waste onto the container under winter conditions. Larger communities may benefit from more sophisticated compactor-style transfer stations, in which mechanical compaction is used to reduce the volume of waste prior to hauling for final disposal.

In general, cost efficiencies will be maximized when the following collection fundamentals can be combined:

- £ · Efficient routing;
- £ · Combined residential and commercial collection;

- £ Optimized use of transfer facilities (if appropriate); and
- £ Optimum catchment areas for regional landfills.

## 2.7 SITING A MODIFIED LANDFILL

Modified landfill facilities should not be visible from the community, should be set back from the airport (8 km federal regulation and 3 km interim regulation), and should be in a watershed that drains away from the community's drinking water source. These siting criteria for the NWT are simple and appear to protect ground and surface water from contamination given the results of Surveillance Network Program (SNP) data analysis for municipal landfills (FSC, 2002).

A checklist follows of factors to consider when siting modified landfill facilities.

**Table 2.3: Modified Landfill Siting Checklist**

Criterion	Stipulation	Reference
Area sufficient for a facility with a capacity for at least a 40-year life	See model in 2.1.1	These guidelines
Areas in flood plain	Restricted beyond 1 in 200 year return	These guidelines
Climatic conditions of region; geological and terrain conditions of site	Consider and take into account	These guidelines
Cover material availability	Where possible, in a location where cover material is readily available	These guidelines
Distance from airport to avoid hazard to aircraft from scavenging birds	3 kilometres	Soberman, <i>et al.</i> (1990)
Distance from community to avoid unsightliness, odour, and smoke	Not visible from community and/or main road (where possible)	These guidelines
Distance from community to minimize construction and maintenance costs of access road	As close as possible while complying with the previous stipulation	These guidelines
Distance from housing	450 metres	<i>Public Health Act</i> (1988) and its <i>General Sanitation Regulations</i> (1990)
Distance from public roads, railways, right-of-ways and cemeteries	90 metres	<i>Public Health Act</i> (1988) and its <i>General Sanitation Regulations</i> (1990)

Criterion	Stipulation	Reference
Distance from surface water to minimize fisheries habitat impacts	30 metres from high water mark	Department of Fisheries and Oceans policy
Distance from treeline	10 metres if no burning, 30 metres if burning will occur	Resources, Wildlife and Economic Development policy.
Geotechnical features of the site	Consider and take into account	These guidelines
Located to ensure protection of drinking water	In a watershed that drains away from the community drinking water supply	These guidelines. <i>Public Health Act</i> can be applied
Located to ensure protection of national / territorial parks, game and wildlife reserves, special fisheries areas	Restricted	These guidelines
Minimize impacts to land, birds, animals, vegetation	Contaminants may not be discharged to the environment	<i>Environmental Protection Act</i> (1988)
Zoning	Accordance with current planning documents	<i>Planning Act</i>
Wind direction	Downwind of prevailing winds if possible	These guidelines
Snow Accumulation	Potential considered and addressed through site grading and location of appropriate fences	These guidelines

## 2.8 MONITORING

### 2.8.1 GROUNDWATER

To determine whether groundwater monitoring is warranted at a particular site, the following table should be used as a guide. The intent of this approach is to identify conditions that could reasonably be expected to represent risks to ground water. The table is a guide only and local circumstances and professional discretion will dictate the final decision. Disputes or uncertainties should be resolved by a qualified groundwater scientist.



**Table 2.4 Assessment of Groundwater Monitoring Need**

Need	Criteria
No groundwater monitoring is required if:	<ul style="list-style-type: none"> <li>£ Hydraulic barrier greater than <math>10^{-6}</math> cm/sec, 5 metres thick; and</li> <li>£ Population served less than 1000.</li> </ul>
Groundwater monitoring may be required if:	<ul style="list-style-type: none"> <li>£ Hydraulic barrier less than <math>10^{-6}</math> cm/sec, 5 metres thick; or</li> <li>£ Hydraulic barrier greater than <math>10^{-6}</math> cm/sec but less than 5 metres thick.</li> </ul>
Groundwater monitoring will be required if:	<ul style="list-style-type: none"> <li>£ Confirmed hydraulic connection with an aquifer; or</li> <li>£ Hazardous wastes are accepted at the site; or</li> <li>£ There are indicators of impact with adjacent lands.</li> </ul>

## 2.8.2 SURFACE WATER

All land and water boards will require routine surface water monitoring program. At minimum three sampling stations will be required: upstream; immediately downstream; and at a receiving body. Large sites may require additional stations. Generally, the requirements will be outlined in a licence.

## 2.9 REGULATORY REQUIREMENTS

A community wishing to develop a new modified landfill, a lateral expansion or landfill closure must undergo the regulatory process which follows.

The community would develop a project description. This document includes what the developer plans to do and how they propose to carry it out. It does not need to be a final design document at this stage but it should include all of the information presented in section 2 of these guidelines.

Alternatively, the engineering planning document could be submitted advising the agency which option has been selected for implementation.

### 2.9.1 MACKENZIE VALLEY PROCESS

Whether a community is in the Sahtu settlement area, the Gwich'in settlement area or elsewhere in the Mackenzie Valley, the regulatory process and forms are identical. Whatever region the community is located in will determine which Board needs to review the application.

If a community is modifying or closing an existing landfill, the timelines and regulations set out in the original licence must be followed.

Municipal landfill development requires preliminary screening as described in the *Mackenzie Valley Resource Management Act*. This consists of three stages, preliminary screening, environmental assessment and environmental impact review, although most developments proceed to permitting after preliminary screening. Preliminary Screening forms may be found on the MVEIRB website or may be faxed or mailed through the appropriate Board.

If the responsible regulatory authority conducting the preliminary screening feels that the development might have significant public concern or there might be significant adverse environmental impacts, they can refer the licence to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) for an Environmental Assessment. This is a more involved process than the Preliminary Screening and leads to recommendations that would then form a part of the licence or permit requirements. If the MVEIRB determined that there was going to be severe adverse environmental impacts from the development, it has the option to refer the project to a more comprehensive Environmental Impact Review, reject it outright, or approve with conditions to mitigate the adverse effects of public concern.

If reached, this last stage in the legislation involves public hearings and a more detailed, comprehensive analysis. The MVEIRB would take all responses into consideration when determining its recommendations that would then form part of the requirements for licensing. At any time during this process, the public or local government may approach the MVEIRB to request further environmental review or to comment on the proposed plans, recommendations and assessments.

The Minister of DIAND must approve the Environmental Assessment Report and the subsequent licence if it were an “A” Licence, or if a “B” Licence was the subject of a public hearing.

Flow Chart 2.1 shows the regulatory planning process for licensure of a solid waste facility.

## **2.9.2 NWT WATER BOARD PROCESS**

Municipal landfill development requires preliminary screening as described by the *Canadian Environmental Assessment Act*.

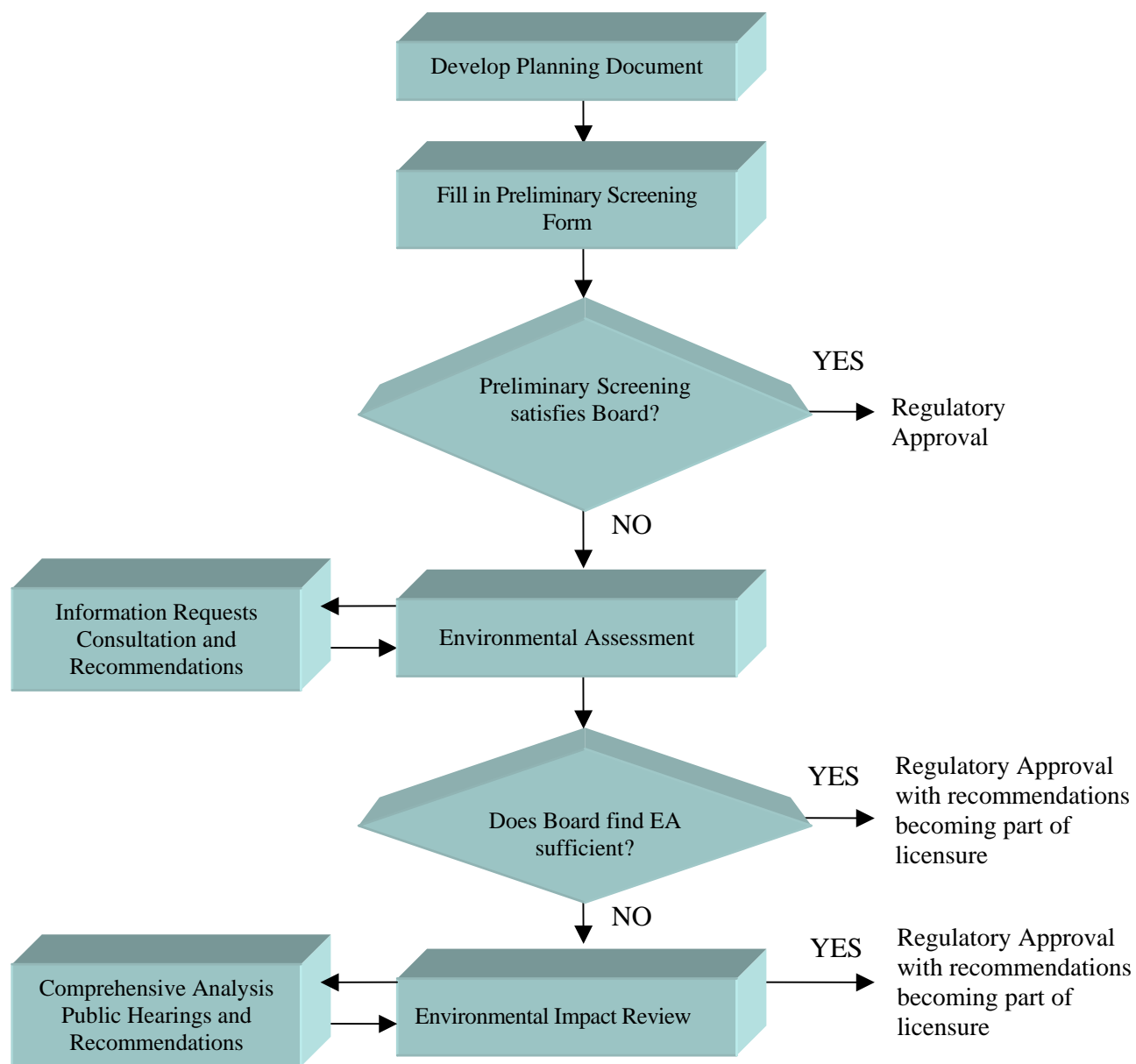
If it is determined that there was going to be severe adverse environmental impacts from the development, the project could be referred to a more comprehensive Environmental Impact Review, rejected it outright, or approved with conditions to mitigate the adverse effects of public concern. The landfill could be the subject of a revised licence, or could require the issuance of a new licence.

The Minister of DIAND must approve the Environmental Assessment Report and the subsequent licence if it were an “A” Licence, or if a “B” Licence was the subject of a public hearing.

### **2.9.3 INUVIALUIT PROCESS**

In the Inuvialuit Settlement Region, contact the Inuvialuit Land Administration (ILA) for a land use permit application. Filling in this form requires the following information: the approximate size of the landfill, NTS maps, equipment to be used, Fuel/Oil Spill Contingency Plan, etc. Again, this is not the final design document and does not need detailed engineering drawings and such.

After review, the ILA will decide if the land use permit should be issued to the developer or referred to the Environmental Screening and Review process. If referred, Environmental Screening and Review will recommend whether or not the project can safely take place and, if so, under what terms and conditions. The licence application will be suspended until the review is complete and the recommendations are in place.



**Flow Chart 2.1: Typical Regulatory Process for Planning of a Solid Waste Facility**

### **3. DESIGNING SOLID WASTE FACILITIES**

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#### **3.1 GENERAL**

To minimize public health and environmental hazards a solid waste landfill is used for land disposal of refuse. This is done by periodically spreading the refuse into thin layers, compacting the refuse by driving over it a few times, and then applying a granular cover material. A *sanitary landfill* requires daily cover of compacted refuse. A *modified landfill* increases the interval between covering operations to once a month or even once a year.

Design and operation is intended to ensure that final landfill form is domed to promote the rapid runoff of surface water.

In northern climates where covering of refuse daily is impractical due to severe winter weather and in small communities that do not have staff and equipment dedicated to disposal operations, a modified landfill operation is the generally accepted standard.

In permafrost regions where ground temperatures are low, biodegradation of solid waste is so slow that it can be considered negligible.

#### **3.2 DESIGN LIFE**

All landfills should be designed for a minimum 20-year design life.

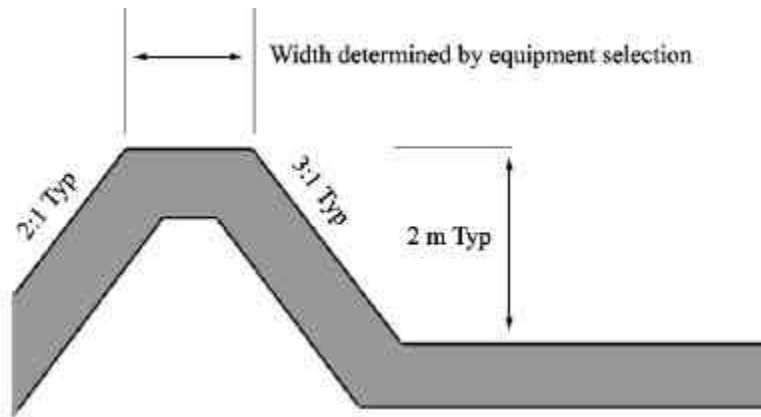
#### **3.3 PERMAFROST ENCAPSULATION DURING OPERATION AND CLOSURE**

Permafrost can be aggraded into a solid waste site to provide encapsulation. It is accomplished by ensuring that the final cover is thicker than the active layer. Such a design is compatible with any of the methods that follow, and should be considered throughout operation, and at closure.

#### **3.4 AREA METHOD**

The area method is selected where rock, a high water table, or permafrost prevents the excavation of trenches.

Wastes are disposed directly on the ground, worked with heavy equipment such as a bulldozer, and packed against a constructed berm, shown in Figure 3-1. As shown later in 4.2.1, soil is added as required and available to provide suitable cover.



**Figure 3-1 Typical Berm Dimensions Used in the Area Method**

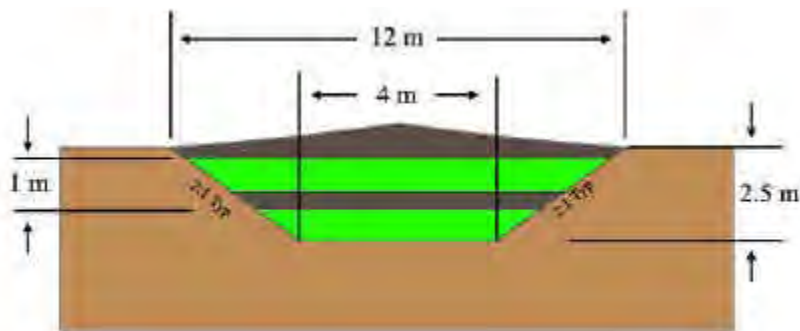
### 3.5 DEPRESSION METHOD

A variation of the area method, the depression method uses a natural slope. Wastes are disposed directly on the ground, worked with heavy equipment such as a bulldozer, and packed against the slope. As shown later in 4.2.2, soil is added as required and available to provide suitable cover.

### 3.6 TRENCH METHOD

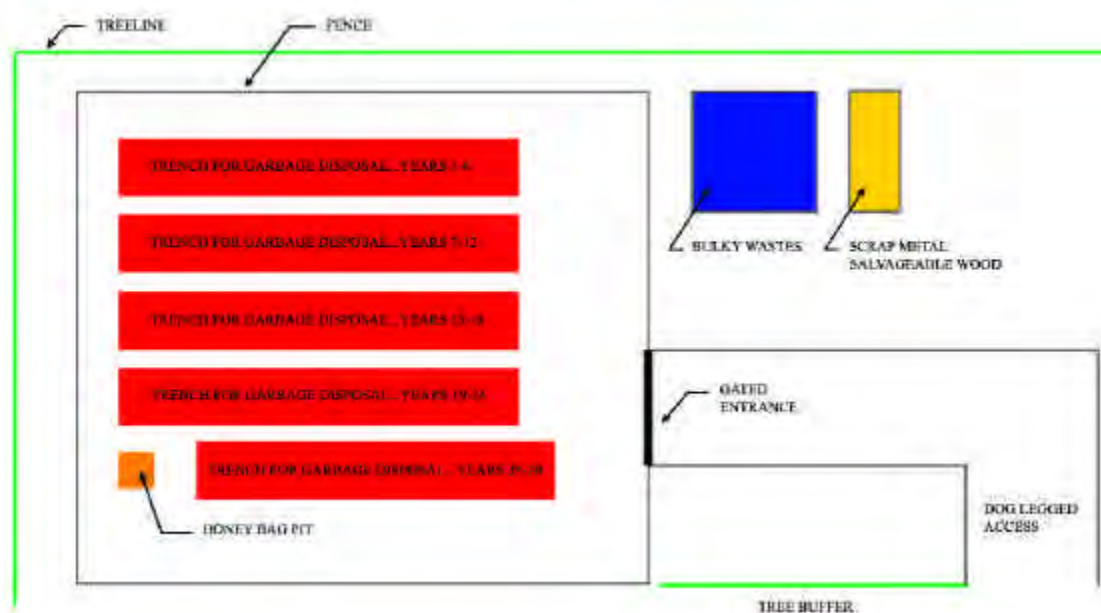
The trench method is selected where soil and terrain conditions allow excavation. Where excavations will be shallow, this method can be used in combination with the area method. Trenches would typically be dug during the summer for use during the winter. A typical trench is shown in Figure 3-2.

Wastes are disposed in the trench, worked with heavy equipment such as a bulldozer, and packed. As shown later in 4.2.3, soil is added as required and available to provide suitable cover.



**Figure 3-2 Typical Trench Design Parameters**

### 3.7 TYPICAL SITE LAYOUT (BULKY/HAZARDOUS/HONEYBAGS/USED OIL)

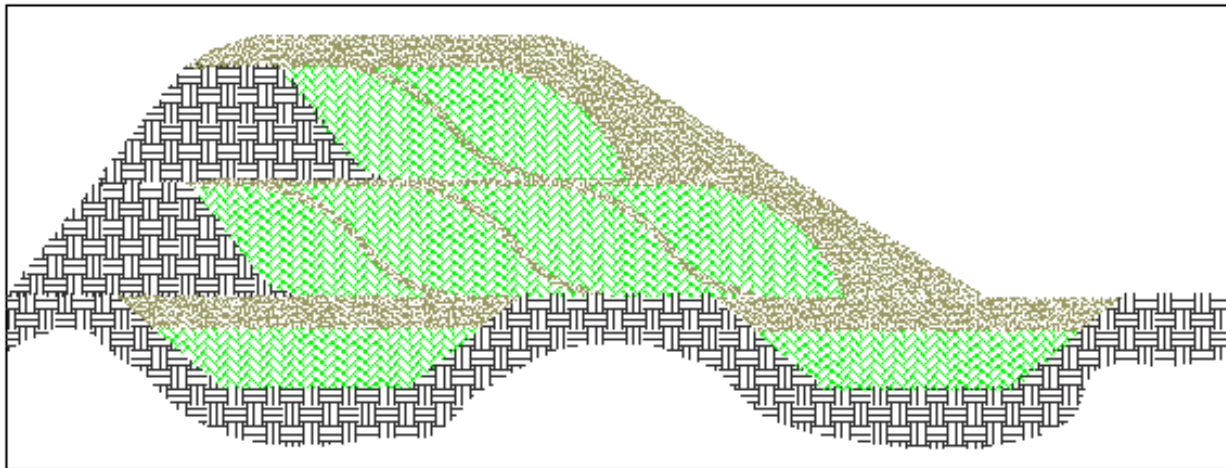


**Figure 3-3 Example of the Layout for a Typical Modified Landfill Site**

The above figure is an example of modified landfill site using the trench method and shows a possible layout of how waste could be segregated. Note that hazardous waste should be inside a fenced area that is locked to prevent innocent public access.

### 3.8 MOUNDING TO PROVIDE ADDITIONAL LIFE

With any of the recommended methods, additional life can be added to a site by mounding as shown in Figure 3-4. Slopes should be maintained for safe operation of equipment, prevent erosion, and minimize costs for cover material. Geotextile fabrics will promote slope stability.



**Figure 3-4 Mounding Concept**

### 3.9 FENCING

The installation and maintenance of fencing is recommended at solid waste facilities for the following reasons.

- £ · To control or limit access to the landfill site by community residents;
- £ · To prevent scavenging animals from causing a nuisance and risking the safety of workers and residents; and
- £ · To control the spreading of blowing garbage.

Fencing may be portable or permanent and may be woven or chain linked.

Electric fencing has proven to be an effective deterrent against bears.

Wooden fences are not recommended, as they can be a fire hazard.



Installation of snow fencing is recommended during the winter to reduce snow accumulation within the site. Gating the entrance and providing times for the public to enter the site are also recommended.

### **3.10 SIGNAGE**

Water licences require that signs be posted in the area to advise the public that the site is being used for the disposal of solid waste. All accesses should be posted.

Additionally, signs are appropriate to advise the public of the use of recycling and take-it-or-leave-it facilities, hours of operation, emergency numbers and the like.

### **3.11 WATER**

#### **3.11.1 GENERAL**

Flowing water should be prevented from entering the site. Cut-off berms, swails, and trenching are effective diversion methods. Water should not pool on site, rather drain quickly without causing erosion.

#### **3.11.2 SURFACE WATER SAMPLING DESIGN**

A water licence will require samples of flowing water as detailed in a Surveillance Network Program. Samples should be collected upstream and downstream of the site. The sample sites should be staked or otherwise marked to ensure representative sampling results.

#### **3.11.3 MONITORING WELL DESIGN**

If required, a groundwater monitoring program must have a sufficient number of monitoring wells, installed at appropriate locations and depths, to yield water samples that:

1. Represent the background conditions of the site (usually hydrologically up gradient from the solid waste facility);
2. Represent the quality of groundwater passing through the site; and
3. Detect any contamination of the uppermost aquifer.

The number, spacing and depths of monitoring wells must be based upon the site-specific characterization of aquifer thickness, groundwater flow rate and direction (including seasonal and temporal fluctuations).

Further, the saturated and unsaturated geologic units and fill materials overlaying the uppermost aquifer and lower aquifer characteristics must be taken into account including: thickness, stratigraphy, lithology, hydraulic conductivity, porosity and effective porosity.

Groundwater monitoring wells should be designed to best ensure they detect contamination from the solid waste site, that is, they should not be located at such a distance from the site as to avoid likely contamination.

The system must be designed and submitted by a qualified groundwater scientist.

### **3.12 HAZARDOUS WASTE STORAGE FACILITIES**

Hazardous waste storage areas should be located within a fenced area, separately fenced if possible, away from innocent public access. Based on the inventory of wastes, sufficient and separate storage should be provided. Storage lockers must be CSA or UL approved, maintained under the responsibility of trained personnel. Readers are referred to the RWED website - <http://www.gov.nt.ca/RWED/eps/index.htm>

### **3.13 REGULATORY REQUIREMENTS**

A community wishing to develop a new modified landfill, a lateral expansion or landfill closure must undergo the following regulatory process.

#### **3.13.1 MACKENZIE VALLEY PROCESS**

Whether a community is in the Sahtu settlement area, the Gwich'in settlement area or elsewhere in the Mackenzie Valley, the regulatory process and forms are identical. Whatever region the community is located in will determine which Board needs to review the application. Readers are referred to Table 1.1 for more information.

If a community is modifying or closing an existing landfill, the timelines and regulations set out in the original licence must be followed. Abandonment and restoration must be considered at design and detailed in supporting documentation.

Once completed, the engineering design documents must be submitted for approval.

#### **3.13.2 NWT WATER BOARD PROCESS**

If a community is modifying or closing an existing landfill, the timelines and regulations set out in the original licence must be followed. Abandonment and restoration must be considered at design and



detailed in supporting documentation. Once completed, the engineering design documents must be submitted for approval.

### **3.13.3 INUVIALUIT PROCESS**

Once completed, the engineering design documents must be submitted for approval.

## **4. OPERATION AND MAINTENANCE**

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### **4.1 MODIFIED LANDFILL GENERAL CONSIDERATIONS**

The cost-effective operation of a modified landfill is the basis for design. Operations are recommended as follows:

- £ · Compaction rates of 3:1 or better are achieved by working a bulldozer or other appropriate heavy equipment over the waste 3 to 5 times;
- £ · Compaction of wastes is undertaken once per week or in combination with collection frequency. Generally, the wastes should be worked and compacted as they are dumped;
- £ · Operations should be undertaken to minimize close-out requirements; and
- £ · Cover material is generalized as 100mm between cells, 300mm on the surface of cells, 600mm as part of close out.

### **4.2 MODIFIED LANDFILL OPERATIONS**

There are three main methods of operating a modified landfill, the area method, the trench method and the depression method.

#### **4.2.1 AREA METHOD**

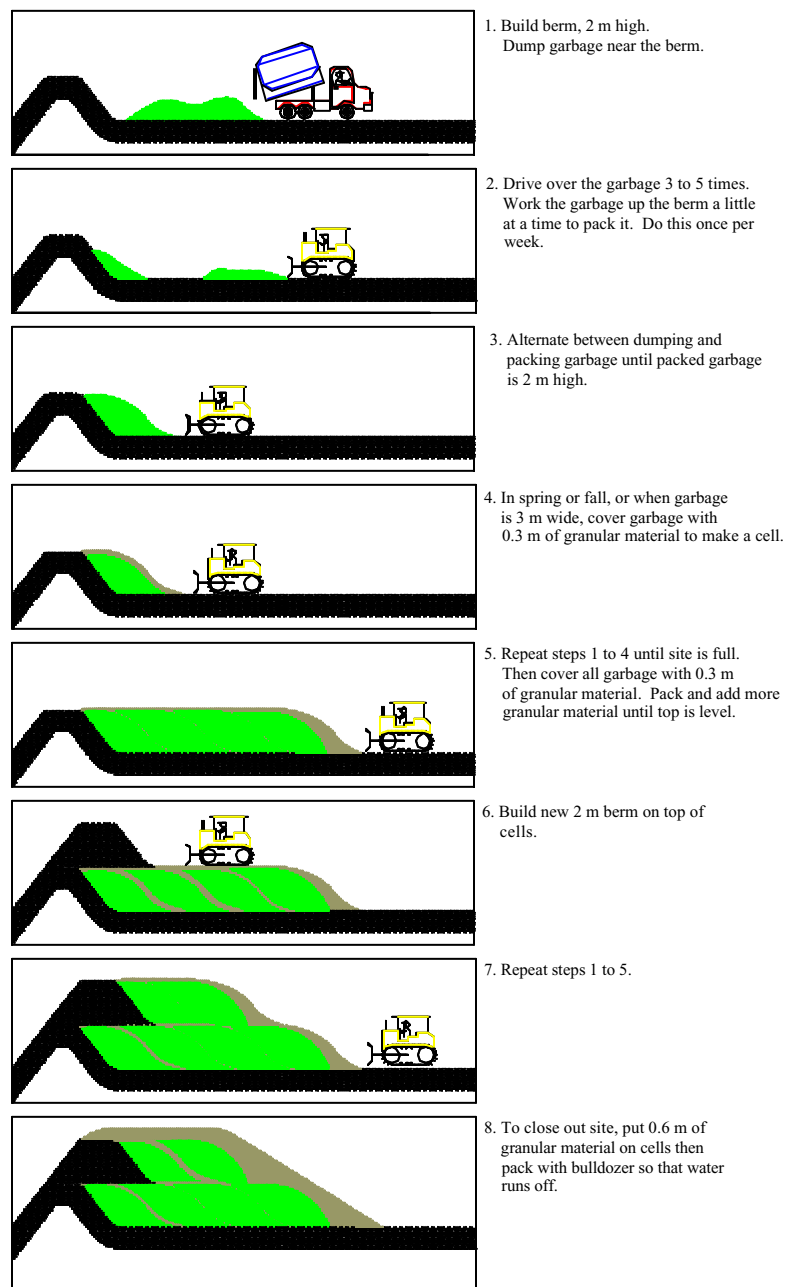
In the area method, waste is emptied out of collection vehicles at the bottom of a short berm. The berm should be 2 metres high. Wastes are worked and compacted against the berm. In the spring or fall, or when the compacted garbage is 3 metres wide, the compacted wastes are covered with 300 mm of granular material. Dry, sandy material is preferred where available. The process is repeated until the landfill is full.

At this point the site can be closed out with a 600 mm cover, domed to promote runoff of water.

Alternatively, a mound can be implemented by packing 300 mm of granular material on the surface prior to beginning the second layer.

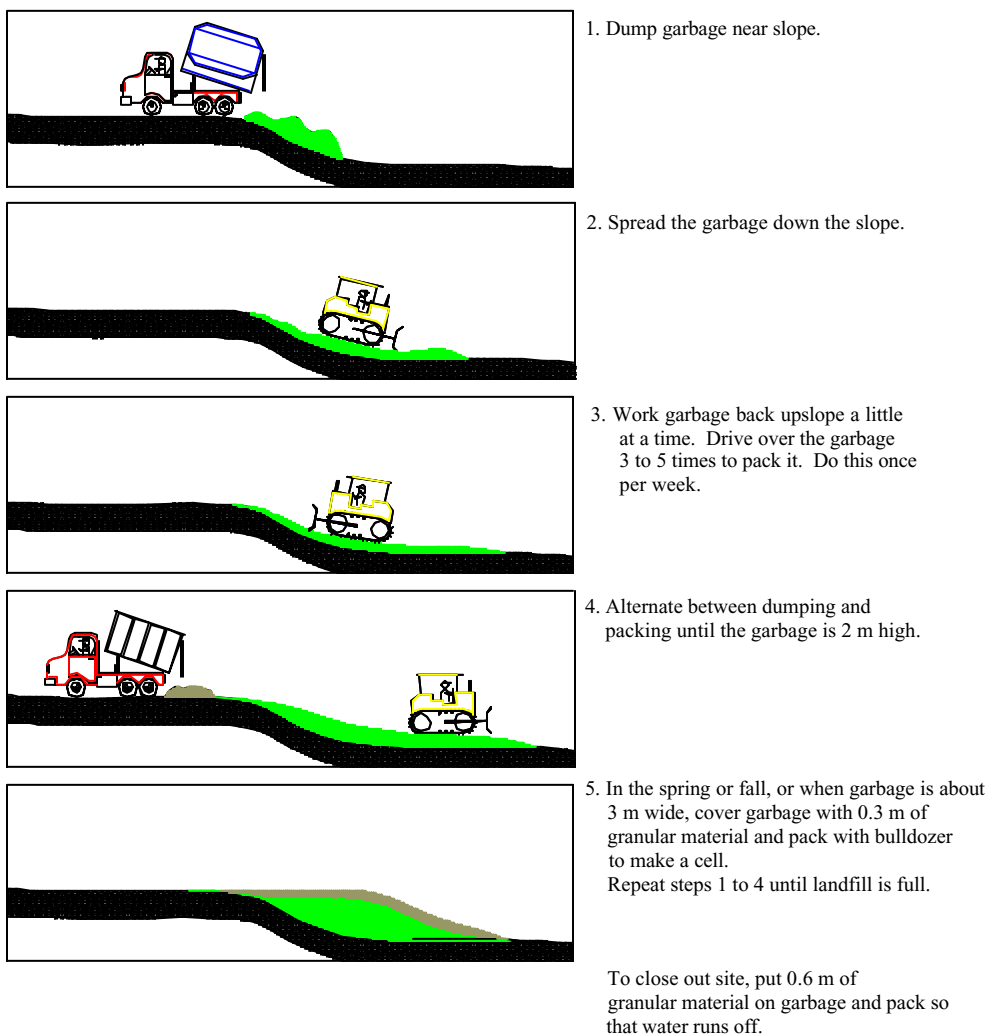


Figure 4.1 illustrates the area method for modified landfill sites. The depression method, shown in Figure 4.2, is similar to the area method except that dumping and compacting takes place against a depression or natural slope.



**Figure 4-1 Area Method with a Second Layer**

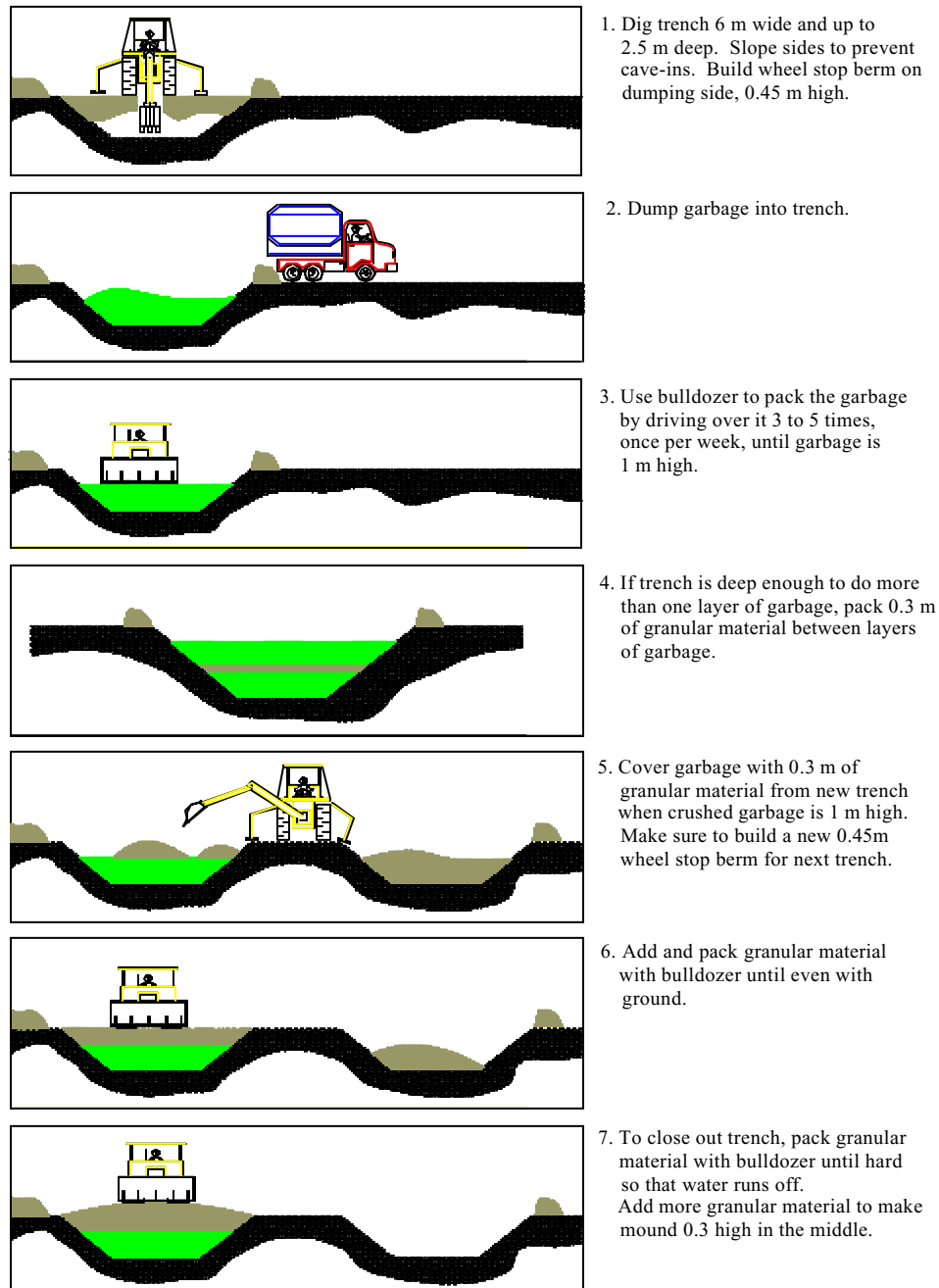
## 4.2.2 DEPRESSION METHOD



**Figure 4-2 Depression Method**

### 4.2.3 TRENCH METHOD

The trench method is the preferred option where the land is suitable for excavation.



**Figure 4-3 Trench Method**



### **4.3 HONEY BAG PIT**

The honey bag pit should be covered frequently during warm weather with soil and/or lime to prevent the breeding of flies.

### **4.4 COMMUNITY WORKS MANAGEMENT SYSTEM / MAINTENANCE MANAGEMENT OPERATING SYSTEM**

The CWMS/MMOS is a task based maintenance management system developed by GNWT/MACA. The system is made of several parts, each contributing to the overall running of the system. The parts include:

- £ · An inventory of assets to be maintained;
- £ · Quality standards to which assets are to be maintained;
- £ · Maintenance procedures and production levels;
- £ · A work order system to authorize work;
- £ · A maintenance schedule;
- £ · Stock control;
- £ · A method to collect data and report results; and
- £ · A method to develop annual budgets and work programs.

The CWMS is a paper-based system. The MMOS is a computer-based system developed using the identical algorithm as the CWMS.

### **4.5 MONITORING PROCEDURES**

#### **4.5.1 WEIGHT/VOLUME**

The annual weight and/or volume of waste disposed should be determined and recorded. Using weigh scales is best practice, however, volumes can be estimated from truck box measurements.

#### **4.5.2 MATERIALS COMPOSITION**

The materials composition Table 2.1 may be used to estimate the potential for the effectiveness of diversion and recycling programs. If such programs are to be implemented, then the actual materials composition should be determined. It is noted that consumer trends and new packaging may change the composition over time. Composition studies should be undertaken routinely to understand these changes and how they may affect programming.

#### **4.5.3 HAZARDOUS WASTE STORAGE**

All hazardous wastes entering and leaving the site should be identified, inventoried, and logged. No hazardous wastes are to be disposed at modified landfills. Readers are referred to <http://www.gov.nt.ca/RWED/eps/index.htm> for more details on hazardous wastes.

#### **4.5.4 WATER AND SOIL SAMPLING**

Follow the *Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites – Volume 1: Main Report* (CCME, 1993), and any subsequent revisions.

### **4.6 REGULATORY REQUIREMENTS**

#### **4.6.1 OPERATION AND MAINTENANCE MANUAL**

As part of due diligence, and a compliance item for a Water Licence, the issuing Board will require the preparation of an Operation & Maintenance Manual for the Sewage and Solid Waste Facilities.

The stated purpose of the manual is to assist community staff in the proper operation and maintenance of their waste disposal facilities. It must include:

- £ · A description of how facilities are operated and maintained;
- £ · How often these tasks are performed; and
- £ · Who is responsible for their completion.

The manual must also demonstrate to the Water Board that the community is capable of operating and maintaining their waste sites.

Inspectors will use the community's manual as part of their inspection procedure to ensure that the stated procedures are being undertaken.

The manual is to be developed according to the requirements of the Water Board. For solid waste sites, it shall include but not be limited to the following:

- £ · Location of facilities and proximity to receiving waters;
- £ · Frequency of inspection of dams, dykes and drainage courses;
- £ · Controlling effluent discharge quality;
- £ · Runoff and drainage control within and around the facility, and restoration of erosion;
- £ · Treatment of contaminated drainage;
- £ · Prevention of windblown debris;
- £ · Managing hazardous waste;
- £ · Segregation of domestic, metal and recyclable waste materials;
- £ · Method and frequency of site maintenance; and
- £ · Alternatives designed to prevent burning of MSW.

#### **4.6.2 DUE DILIGENCE**

Regulatory compliance requires due diligence. Due diligence may be as defined as:

- £ · Establishing a proper system to prevent contravention of regulatory standards; and
- £ · Taking all reasonable steps to ensure effective operation of that system.

As part of the due diligence program, an internal monitoring and reporting program must be put in place. This program actively promotes the interrelationship between staff and management so that information, resources and finances can be directed effectively.

Documentation is fundamental to the program. Some of the information requirements include:

- £ · The environmental policy;
- £ · Roles, responsibilities and authorities;
- £ · Significant environmental aspects;
- £ · Legal requirements;
- £ · Training;
- £ · Communication within the organization;
- £ · Communication with regulatory authorities;
- £ · Emergency response;
- £ · Monitoring and measurement;
- £ · Audits; and
- £ · Records management.

## **5. CLOSURE**

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### **5.1 GENERAL**

Once a landfill has reached capacity, final closure must be completed in a manner that ensures the long-term protection of the environment. Site closure requirements include:

### **5.2 REGULATORY REQUIREMENTS**

All land and water boards require notification of a pending closure. Generally, a plan must be submitted for approval at least six months prior to closure that includes the following information:

- £ · Future land use;
- £ · Leachate prevention and monitoring;
- £ · An implementation schedule;
- £ · Mapping which shows all disturbed areas, borrow material areas, and site facilities;
- £ · Consideration of altered drainage patterns;
- £ · Type and source of cover materials;
- £ · Hazardous wastes including waste oil; and
- £ · Contaminated site remediation.

### **5.3 FUTURE LAND USE**

Any future use of the site should be passive to reduce problems that may result from the stored waste. Recommended uses include:

- £ · Waste transfer station or related storage area;
- £ · Bulky waste storage;
- £ · Passive recreation; and
- £ · Open area.

### **5.4 INFRASTRUCTURE AND EQUIPMENT REMOVAL (AS APPROPRIATE)**

Materials stored for reuse may be landfilled, including tires, wood, metal and the like.

Waste oil and other liquids should be identified and removed.

Batteries and other hazardous materials should be identified and removed.

Any buildings on site should be decommissioned and removed.

Fences should be removed and reused if possible, otherwise landfilled.

Bulky waste should be removed.

### **5.5 GRADING AND CAPPING**

The site should be capped with 600 mm of material and graded to positive drainage. Where readily available, clay material is preferred. The site should be seeded to stabilize the soil and prevent erosion.

### **5.6 SURVEY**

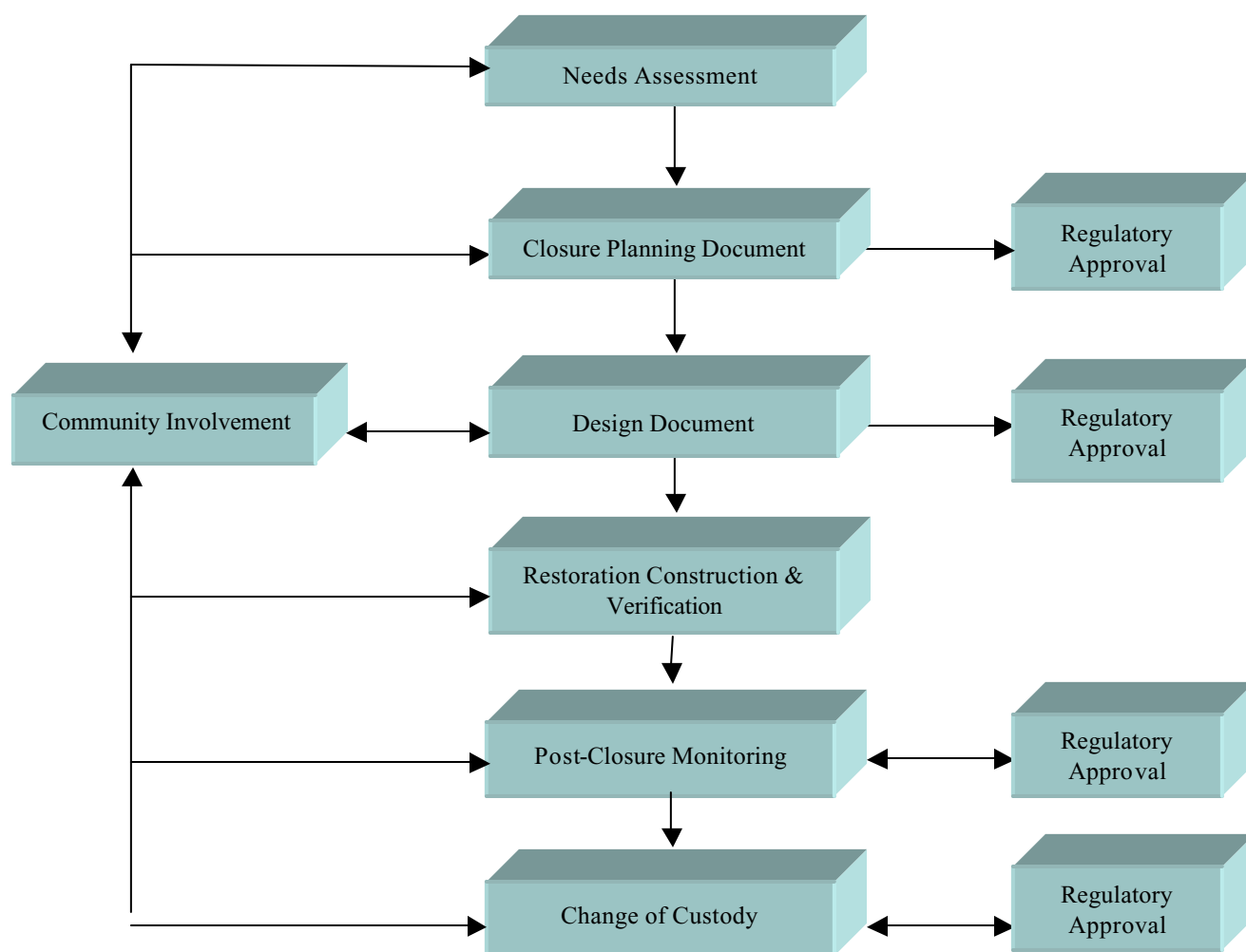
A final survey should be undertaken to mark designated areas, locate monitoring wells and SNP locations, map and document the extent of the site. The survey should be tied to a permanent benchmark if available.

## 5.7 REGISTRATION

The site should be identified as a Solid Waste Management Facility on the land title documents.

## 5.8 SIGNS

A sign should advise the public that the site is closed and should indicate alternative facilities. Flow Chart 5.1 summarizes the regulatory process for reclamation of a Solid Waste Management Facility.



**Flow Chart 5.1 Summary of Process to Plan, Construct, Monitor and Reclaim a former Solid Waste Facility**

## **6. POST CLOSURE**

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### **6.1 GENERAL**

Long term care of the decommissioned landfill is important so that the impacts to the surrounding environment are minimized.

For every site, cover material should be allowed to settle and re-graded as necessary. Any cave-ins should be filled in to prevent standing water. Vegetation should be monitored to ensure that it continues to grow. There should be on-going maintenance of drainage pathways and the like.

### **6.2 INSPECTIONS**

A post closure inspection checklist should be filed with the appropriate regulatory body. The checklist should include:

- £ · Inspection frequency;
- £ · Items to be inspected; and
- £ · Compliance requirements.

### **6.3 POST CLOSURE MONITORING**

Operational monitoring shall be continued into the post-closure period until one or more of the following conditions apply:

- £ · It can be demonstrated that the site is no longer releasing contaminants; or
- £ · It can be demonstrated that the site has reached an equilibrium state in which contaminant release poses no unacceptable risk to the environment.

Proponents shall submit a report to the appropriate regulatory body which justifies the cessation of monitoring. Disputes or uncertainties should be resolved by a qualified groundwater scientist.



## **6.4 REGULATORY REQUIREMENTS**

All land and water boards will require routine reporting. Generally, the requirements will be outlined in a licence.

## 7. REFERENCES

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Canadian Council of Ministers of Environment. *Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites – Volume 1: Main Report*, CCME EPC-NCS62E, 1993.

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Helfrick, Don. *Personal Correspondence*. Resources, Wildlife & Economic Development, Environmental Protection Service, Hazardous Waste Specialist. October 26, 2001.

Quaye, F.A. and G.W. Heinke. *Co-disposal of Hazardous and Solid Wastes in the Northwest Territories*. Municipal and Community Affairs. March, 1992.



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## **Appendix C**

# *Final Report*

## SUMMARY 2008 WASTE MANAGEMENT PROGRAM BAFFINLAND IRON MINES CORPORATION

*Presented to:*



*By:*



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QIKIQTAAALUK ENVIRONMENTAL

March 2009

# SUMMARY 2008

## WASTE MANAGEMENT PROGRAM

### BAFFINLAND IRON MINES CORPORATION

Prepared by: \_\_\_\_\_

Benoit Dion, B.Sc., M.Env.

Approved by: \_\_\_\_\_

Jacques Dion, T.A.Sc.



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QIKIQTAALUK ENVIRONMENTAL

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### SCHEDULE 1 to 5

Material recycled: detailed inventory (vessel 1 and 2.....	SCHEDULE 1
Photographs (1 <sup>st</sup> trip and 2 <sup>nd</sup> trip).....	SCHEDULE 2
Copies of permits, insurance and C of A.....	SCHEDULE 3
Weight ticket (Horizon env.).....	SCHEDULE 4
Shipping manifest.....	SCHEDULE 5
Shipping documentation.....	SCHEDULE 6

## Summary 2008 - Waste management program

### Introduction

Baffinland is committed to remediating areas impacted by former as well as current exploration activities at their sites on Baffin Island. In order to comply with this, Qikiqtaaluk Environmental was contracted to provide an inventory of existing wastes on site and subsequently provide a Waste management implementation plan that would allow for the proper disposal of hazardous waste. Throughout the summer and fall of 2008, QE provided Environmental Quality Assurance Specialists to complete work on site ensuring that the proper repackaging, identification, labeling, and manifesting of hazardous waste for shipment off site met regulatory requirements.

QE initiated the crushing of numerous empty 45 gallon drums on site to prepare for shipment off site. Residual fuel mainly from bladders was transferred into drums designed and identified as waste fuel, and empty drums were then crushed utilizing an on-site drum crusher. This work was completed within lined containment areas (surrounded by berms). Hazardous materials removed from site included waste hydrocarbon liquids, waste calcium chloride, used batteries, hydrocarbon contaminated soils and numerous empty 45 gallon crushed drums. Table 1 presents the type of materials removed from site and their approximate volumes.

### Transport to disposal facilities

Materials from the Baffinland sites were shipped via two separate sea lifts on September 2<sup>nd</sup> and October 18<sup>th</sup> to the port of Valleyfield, Quebec. The first sealift, Avataq departed Milne Inlet on September 2<sup>nd</sup> and arrived in Valleyfield on September 12<sup>th</sup>. Hazardous materials from the first shipment included waste hydrocarbon liquids and several pallets and seacans of crushed drums (Tables 2, 3 and 4). A second shipment of hazardous materials was removed from Milne Inlet on October 18<sup>th</sup> aboard the Avataq and arrived at destination on November 21<sup>st</sup>. This material included waste hydrocarbon liquids and contaminated soils (Tables 5 and 6).

Hazardous material was managed at the port by QE on behalf of Baffinland Iron Mines Corporation and then shipped to designated disposal facilities. Waste materials were shipped to four (4) registered disposal facilities located in Quebec (see Appendix 3 for Environmental



Compliance documentation for the four recycling facilities). All waste materials were processed at Ecolocycle Inc. (Tables 2 and 5) except for crushed drums and contaminated soils. Ecolocycle Inc. is located in St-Hyacinthe, Quebec and specializes in the collection and recycling of used oil. Ecolocycle operates the largest used oil storage facility in Quebec with a holding capacity of 2.4 million liters. Used oil processed at this facility is filtered and analyzed prior to storage of the product. This processed waste oil is then sold to companies for use in their waste oil burners. Companies purchasing waste oil from Ecolocycle are registered with the Quebec Ministry of Environment as authorized waste oil burners.

Hydrocarbon contaminated soils were disposed at Horizon Environnement Inc. located in Grand-Piles, Quebec (Table 6). Contaminated soils were analyzed to ensure that hydrocarbon concentration met provincial standards for disposal of the material in an engineered landfill. Copies of Horizon's permits and licenses are presented in Schedule 3 as well as the company's contact information.

Crushed drums removed from Baffinland sites were recycled utilizing two (2) separate steel recycling companies within the Province of Quebec. This includes Acier et Metaux Doucet Inc., located in Granby and Coteau Metal Inc. located in Riviere Beaudette. Approximately 3300, 45 gallon crushed drums were processed and recycled at these facilities (Tables 3 and 4).

Weight tickets for the hydrocarbon contaminated soil disposed at Horizon Environment inc. are included in Schedule 4 and manifests for the transportation of the hazardous materials can be found in Appendix 5.

Shipping documentation is provided in Schedule 6 and includes the following:

- Documents from Nunavut Eastern Arctic Shipping (NEAS);
- Shipping documents from the disposal facilities;
- Baffinland Packing Slips;

Table 1: Inventory removed in 2008 from Mary River and Milne Inlet

Description of waste	Transportation of dangerous goods	Unit	Quantity	Approximate volume (m <sup>3</sup> )
Waste oil	Not TDG regulated	Tote 1000 l.	40	40
Waste oil	Not TDG regulated	Drums	52	10.6
Waste oil	Not TDG regulated	Pails (20 litres)	50 (approx.)	1
Waste fuel, UN 1202 and 1203	Flammable liquid, class 3	Drums	487	99.8
Hydrocarbon contaminated water	Not TDG regulated	Drums	524	107.4
Dust suppressant (EK-35)	Not TDG regulated	Drums	190	38.9
Oily absorbent	Not TDG regulated	Drums	4	0.8
Waste coolant (anti-freeze)	Not TDG regulated	Drums	2	0.4
Waste sodium hypochlorite	Not TDG regulated	Drums	3	0.6
Waste oil filters	Not TDG regulated	Filters	30 (approx.)	1
Waste grease	Not TDG regulated	Pails (20 litres)	15 (approx.)	0.3
Waste calcium chloride (contaminated with oil)	Not TDG regulated	Pails (20 litres)	10 (approx.)	0.2
Waste batteries, UN 2794	Corrosive substance, class 8	1 cubic meter bag	25 (approx.)	1
Waste anionic copolymer	Not TDG regulated	Pails (20 litres)	72 (approx.)	1.4
Waste oily sludge	Not TDG regulated	1 cubic meter bag	4	4
Hydrocarbon contaminated soil	Not TDG regulated	Metric ton	60,4	37.7**
Crushed drums	Not TDG regulated	Metric ton	72,1 (3300 drums approx.)	297

\*A detailed inventory (per day, per waste and per vessel) is available in schedule 1

\*\*Assuming a soil density of 1.6 Tons per m<sup>3</sup>

## Disposal facilities: Contact information

### 1. Écolocycle inc.

7950, Avenue Pion,  
Saint-Hyacinthe, Qc, J2R 1R9  
Tel : (450) 796-6060  
Fax : (450) 796 4525



### 2. Acier & Métaux Doucet inc.

1050, rue Saint-Charles S.,  
Granby, Qc., J2G 8C6

### 3. Coteau Metal inc.

99, route 338,  
Coteau-du-Lac, Qc., J0P 1B0

### 4. Horizon Environnement inc.

120, Route 155,  
Grandes-Piles, Qc., GOX 1H0



SCHEDULE 1

Material recycled: detailed inventory  
Vessel 1 and 2

**1<sup>st</sup> Vessel - NEAS Avataq** (departure from Milne Inlet : 2<sup>nd</sup> September, arrival at Port of Valleyfield: 12<sup>th</sup> September)

Disposal treatment center 1

Table 2: Écolocycle (Hazardous waste liquid and solid)

7/10/2008	Lube cube (1000 L.)	Waste oil (205 L.)	Waste fuel (205 L.)	Contaminated water (205 L.)	Dust suppressant (205 L.)	Oily absorbant (205 L.)	Waste coolant (205 L.)	Other	Manifest number	Truck registration number
Truck 1					104				T1277-78	32424/492314
Truck 2	12				64				T1281-82	372805
Truck 3	8	5	58	1					T1287-88	398931
Truck 4		14	79	11	14				T1289-90	N/A
Truck 5		5	53	37					T1291-92	372824/492314
<b>8/10/2008</b>									N/A	N/A
Truck 1		2	88	5			1		T1293-94	372824/492314
Truck 2		19	72	12			1		T1295-96	N/A
Truck 3		3	54	45		4			T1298-99	N/A
Truck 4	18								T1300	N/A
Truck 5		4	43	45					T1301-02	372824/492314
Truck 6			12	84					T1303-04	372805 - N/A
<b>9/10/2008</b>									N/A	N/A
Truck 1				104					T1305-06	372824/492314
Truck 2				88	8				T1307-08	372805
Truck 3			20	76					T1309-10	N/A
Truck 4			8	16				3 x sodium hypochlorite 3 x bags of waste oil	T1311	N/A
<b>Summary</b>	38	52	487	524	190	4	2	3 x sodium hypochlorite 3 x bags of waste oil	N/A	N/A
<b>Approximate volume (m<sup>3</sup>)</b>	38	10,7	99,8	107,4	39	0,8	0,4			

## Disposal treatment center 2 and 3

Table 3 : Acier & Métaux Doucet inc. (crushed drums)

	Date	Scrap metal	Quantity (pallets)	Quantity (drums)	Tons	Approximate volume (m <sup>3</sup> )	References
Truck 1	20/10/2008	Crushed drums	46 pallets	850 (approx.)	20,140	82,8	17848
Truck 2	23/10/2008	Crushed drums	23 pallets	450 (approx.)	9,59	39,4	17839

Table 4 : Coteau Metal inc. (crushed drums)

	Date	Scrap metal	Quantity (drums)	Tons	Approximate volume (m <sup>3</sup> )	References
Truck 1 to 5	12/11/2008	Crushed drums	2000 (approx.) in 5 sea cans	42,37	174,1	0499036,841 692, 103888, 352091, 245361

**2<sup>nd</sup> Vessel - NEAS Avataq** (departure from Milne Inlet : 18<sup>th</sup> October, arrival at Port of Valleyfield: 21<sup>th</sup> November)

## Disposal treatment center 1

Table 5: Écolocycle (Hazardous waste liquid and solid)

Description	Quantity (1 cubic meter bag)	Date	References	Registration number	Approximate volume (m <sup>3</sup> )	Comments
Waste oil (pails)/ waste oil filters	2	1/12/2008	Port T1460, Écolocycle 12801	RY92314	1	
Waste calcium chloride	2	1/12/2008	Port T1460, Écolocycle 12801	RY92314	0,2	
Waste batteries	1	1/12/2008	Port T1460, Écolocycle 12801	RY92314	1	
Waste anionic acrylamide cop.	4	1/12/2008	Port T1460, Écolocycle 12801	RY92314	1,4	
Waste oily sludge	4	1/12/2008	Port T1460, Écolocycle 12801	RY92314	4	
Waste oil (in pails)	3	1/12/2008	Port T1460, Écolocycle 12801	RY92314	1	1 bag from 1 <sup>st</sup> vessel (M356)

Description	Quantity (1 cubic meter bag)	Date	References	Registration number	Approximate volume (m <sup>3</sup> )	Comments
Waste oil (tote 1000 L.)	2	1/12/2008	Port T1460, Écolocycle 12801	RY92314	2	1 tote from 1 <sup>st</sup> vessel (M356)
Waste grease (in pails)	2	1/12/2008	Port T1460, Écolocycle 12801	RY92314	0,3	1 bag from 1 <sup>st</sup> vessel (M355)
Total	20	N/A	N/A	N/A	10,9	N/A

## Disposal treatment center 2

Table 6 : Horizon Environnement inc.

8/12/2008	Hydrocarbon contaminated soil (1 cubic meter bag)	Approximate volume (m <sup>3</sup> )	References	Registration number
Truck 1	33	20	T1518-19	L265116
Truck 2	25	17,7	T1281-82	435042
Total	58	37,7	N/A	N/A

SCHEDULE 2

PHOTOGRAPHS  
1<sup>st</sup> trip and 2<sup>nd</sup> trip





Photograph 1: Drums of waste fuel sent to Écolocycle



Photograph 2: Crushed drums sent to Métaux Doucet





Photograph 3: Quatrex of hazardous waste sent to Écolocycle



Photograph 4: Drums of hazardous waste ready for shipment

SCHEDULE 3  
Copies of Permits and C of A

Trois-Rivières, November 11<sup>th</sup> 1998

**MODIFICATION**

Horizon Environnement inc.  
120, route 155  
Grandes-Piles (Québec) G0X 1H0

N/Réf.: 7610-04-01-01788.01  
1166038

Object: Setting up of an enhanced security confinement cell and a contaminated soil treatment centre.

---

Ms,  
Mr,

The present modification concerns the authorization certificate issued on august 22<sup>nd</sup> 1995 under section 22 of the Environment Quality Act (R.S.Q., chapter Q-2) and modified on March 7<sup>th</sup> 1996, June 6<sup>th</sup> 1996, November 12<sup>th</sup> 1996, July 9<sup>th</sup> 1997 and September 8<sup>th</sup> 1998, in regards to the following project:

Setting up and exploitation of an enhanced security confinement cell and a contaminated soil treatment centre on lot 25-7, range II from the Saint-Maurice river, Radnor township, municipality of Grandes-Piles, within the regional municipality of Mékinac.

Acceptability of storing special waste in enhanced security confinement cells equipped with geomembranes, relocation of leachate water accumulation basins and change in the sequence of establishment of the cells.

Modification of a portion of the enhanced security confinement cell to maximum-security confinement cell.

Cells relocation. Modification of all confinement cells into a maximum-security type.

Transformation of the 1B maximum-security confinement cell to an enhanced security cell.

...

## **MODIFICATION**

2

N/Réf.: 7610-04-01-01788.01  
1166038

November 11<sup>th</sup> 1998

---

Construction of a leachate water storage basin of an approximate capacity of 4 300 m<sup>3</sup> between existent basins and the storage platform.

Reediting of the treated water effluent standard, including the new molybdenum norm, which becomes 1 mg/L.

Setting up of gas emission standards from the soil biotreatment unit and the associated control program.

Following your request dated September 24<sup>th</sup> 1998 and received on September 25<sup>th</sup> 1998 and completed on October 19<sup>th</sup> 1998, I authorize, under article 122.2 of the aforementioned law, the following modification:

- Transformation of the 1B enhanced security cell to a maximum-security cell.

The following documents are an integral part of the present modification:

- Application for the authorization certificate modification and related information, dated September 24<sup>th</sup> 1998, signed by Mr. Claude Fournier;
- Letter to the Ministère de l'Environnement et de la Faune, dated October 14<sup>th</sup> 1998, signed by Mr. Claude Fournier, concerning additional information;
- Plan No 6743-1800 « État du site et développements projetés; vue en plan » Tecsult inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, September 24<sup>th</sup> 1998;
- Plan No 6743-1801 « Cellule 1B – Modification: Reprofilage des pentes; vue en plan » Tecsult inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, September 24<sup>th</sup> 1998;
- Plan No 6743-1802 « Cellule 1B – Modification: Coupe et détails » Tecsult inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, September 24<sup>th</sup> 1998;

## MODIFICATION

3

N/Réf.: 7610-04-01-01788.01  
1166038

November 11<sup>th</sup> 1998

- 
- Plan No 6743-1803 « Cellule 1B – Modification: Drainage de la cellule; vue en plan » Tecsalt inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, September 24<sup>th</sup> 1998;
  - Plan No 6743-1803-01 « Cellule 1B – Modification: Drainage de la cellule; vue en plan » Tecsalt inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, October 13<sup>th</sup> 1998;
  - Plan No 6743-1804 « Cellule 1B – Modification: Détail du système de drainage de la cellule » Tecsalt inc., Horizon Environnement inc., signed and sealed by M. Roméo Ciubotariu, engineer, October 13<sup>th</sup> 1998;

In case of divergence between these documents, the information contained in the most recent document will prevail.

Furthermore, the aforementioned authorization certificate modification does not exempt the holder to obtain any other authorization required by law or by any regulation, if need be.

For the minister,

RP/GF/fr

Raymonde Proulx  
Regional director of the Mauricie  
and Centre du Québec Regions

---

**Ref. No. 320005829977****CERTIFICATE OF INSURANCE**

Aon Reed Stenhouse Inc.

700, rue De La Gauchetière Ouest

Bureau 1600

Montréal QC H3B 0A4

tel 514-842-5000 fax 514-842-3456

Re: All operations and locations of the insured.

Veolia ES Canada Services Industriels Inc.

Veolia ES Matières Résiduelles Inc.

Veolia ES Canada Industrial Services Inc.

**TO WHOM IT MAY CONCERN**

Insurance as described herein has been arranged on behalf of the Insured named herein under the following policy(ies) and as more fully described by the terms, conditions, exclusions and provisions contained in the said policy(ies) and any endorsements attached thereto.

**Insured**

VEOLIA ES CANADA INC. AND ALL SUBSIDIARIES

8600 RUE JARRY EST

ANJOU, QC H1J 1X7

**Coverage**

<b>Commercial General Liability</b>	<b>Insurer</b>	Zurich Insurance Company	
<b>Policy #</b>	8835415		
<b>Effective</b>	01-Jul-2008	<b>Expiry</b>	01-Jul-2009
<b>Limits of Liability</b>	Bodily Injury & Property Damage, Each Occurrence \$2,000,000 Products and Completed Operations, Aggregate \$2,000,000 Non-Owned Automobile Liability \$2,000,000 Legal Liability for Damage to Hired Automobile \$50,000 Tenant's Legal Liability - All Risks \$2,000,000 Policy may be subject to a general aggregate and other aggregates where applicable		
<b>Automobile Owners Form</b>	<b>Insurer</b>	Zurich Insurance Company	
<b>Policy #</b>	9993719		
<b>Effective</b>	01-Jul-2008	<b>Expiry</b>	01-Jul-2009
<b>Limits of Liability</b>	Third Party Liability - O.A.P.1 \$2,000,000 Civil Liability - Q.P.F.1 \$2,000,000		
<b>Umbrella Liability</b>	<b>Insurer</b>	Zurich Insurance Company	
<b>Policy #</b>	8834899		
<b>Effective</b>	01-Jul-2008	<b>Expiry</b>	01-Jul-2009
<b>Limits of Liability</b>	Each Occurrence \$3,000,000 Policy may be subject to a general aggregate and other aggregates where applicable		

**Terms and / or Additional Coverage**

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE  
OR, IN THE CASE OF AUTOMOBILE INSURANCE,

THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE

**Aon**

**Ref. No. 320005829977****CERTIFICATE OF INSURANCE****Commercial General Liability**

General Aggregate \$10,000,000

**Automobile Owners Form**

OPCF 27 - Liability for Damage to Non-Owned Automobiles (OPCF 2 incl.)

Limit per Occurrence \$500,000

All Perils Deductible \$10,000

OPCF 5 - Permission to Rent or Lease (Specified Lessee)

QEF 27 - Civil Liability for Damage to Non-Owned Automobiles Including Automobiles Provided by an Employer

Limit per Occurrence \$500,000

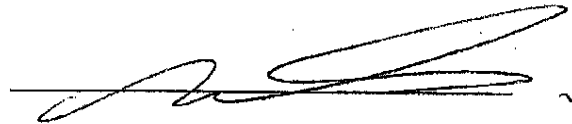
All Perils Deductible \$10,000

QEF 5a - Lease or Leasing

THIS CERTIFICATE CONSTITUTES A STATEMENT OF THE FACTS AS OF THE DATE OF ISSUANCE AND ARE SO REPRESENTED AND WARRANTED ONLY TO THE INSURED. OTHER PERSONS RELYING ON THIS CERTIFICATE DO SO AT THEIR OWN RISK.

**Aon Reed Stenhouse Inc.**

Dated : 25-June-2008  
Issued By : Dessaulles, Marie  
Tel : (514) 840-7736



THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE  
OR, IN THE CASE OF AUTOMOBILE INSURANCE,

THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE

**AON**



**REF. N° PLS 2337509/CPO 2336969****CERTIFICATE OF INSURANCE**

Aon Reed Stenhouse Inc.  
700, rue De La Gauchetière Ouest  
Bureau 1600  
Montréal, Québec H3B 0A4  
tél. : 514-842-5000 téléc. : 514-842-3456

Re : All operations of the named insured

**VEOLIA ES CANADA SERVICES INDUSTRIELS INC.**  
**VEOLIA ES MATIÈRES RÉSIDUELLES INC.**  
**VEOLIA ES CANADA INDUSTRIAL SERVICES INC.**

Holder :

**TO WHOM IT MAY CONCERN**

Insurance as described herein has been arranged on behalf of the Insured named herein under the following policy(ies) and as more fully described by the terms, conditions, exclusions and provisions contained in the said policy(ies) and any endorsements attached thereto.

**Insured**

VEOLIA ENVIRONMENTAL SERVICES NORTH AMERICA CORP  
/VEOLIA ES CANADA INC. AND ALL SUBSIDIARIES  
8600 Jarry Street  
Montréal QC H1J 1X7

**Coverage****Environmental Impairment Liability**

Insurer: AMERICAN HOME ASSURANCE COMPANY

Policy Number: PLS 2337509

Effective: April 30, 2007

Expiry: July 1, 2010

**Limits of Insurance**

Any One Claim / per insurance period

10 000 000 \$

**Coverage****Contractors' Pollution Liability**

Insurer: AMERICAN HOME ASSURANCE COMPANY

Policy Number: CPO 2336969

Effective: July 1, 2008

Expiry: July 1, 2009

**Limits of Insurance**

Any One Claim / per insurance period

10 000 000 \$

**Term and/or Additional Coverage**

All limits shown on this certificate are in US Dollar.

THIS MEMORANDUM CERTIFICATE CONSTITUTES A STATEMENT OF THE FACTS AS OF THE DATE OF ISSUANCE AND ARE SO REPRESENTED AND WARRANTED ONLY TO THE INSURED. OTHER PERSONS RELYING ON THIS MEMORANDUM DO SO AT THEIR OWN RISK.

**Aon Reed Stenhouse Inc.**

Dated : 25 June 2008  
Issued by : Marie Dessaulles  
Tel : 514-840-7736

  
Signature

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE  
OR, IN THE CASE OF AUTOMOBILE INSURANCE,  
THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE

SCHEDULE 5  
SHIPPING MANIFEST



This Movement document/manifesto conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

9291019-9

Copy / Copie 1 (white / blanche)



This Movement document/manifesto conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

9291025-6

MOE 04-1917 (06/05)

Copy / Copie 1 (white / blanche)



This Movement document manifest conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

N° de référence du document de mouvement manifeste

9291026-4

<b>A</b> Generator / consigneur Producteur / expéditeur	Registration No. / Provincial ID No. N° d'immatriculation - dtd provincial	Company name / Nom de l'entreprise <b>Baffinland Inc. Mines</b> Mailing address / Adresse postale 120 Adelaide W Toronto Ontario M5H 1T7 Email / Courriel électronique Cheryl.wray@baffinland.com Tel No. / N° de tél. 416 364 8820 Shipping address / Adresse de livraison Mary River / Milne Inlet site Province Postal code / Code postal Nunavut
<b>B</b> Carrier Transporteur	Registration No. / Provincial ID No. N° d'immatriculation - dtd provincial	Company name / Nom de l'entreprise <b>Ecolocycle inc</b> Mailing address / Adresse postale 7450 av. Pion, St-Hyacinthe, QC J2R 1R9 Email / Courriel électronique ecolocycle@ecolocycle.com Tel No. / N° de tél. 450 796 6660 Vehicle / Véhicule Trailer - Rail car No. 1 1 <sup>re</sup> remorque - wagon Trailer - Rail car No. 2 2 <sup>e</sup> remorque - wagon
Port of entry / Port d'entrée international use only / Port of exit / Port de sortie international use only		
Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. / Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimés): Michel Doyon Tel No. / N° de tél. 450 796 6660 Year / Année 08 Month / Mois 09 Day / Jour 02 Signature: [Signature]		
Prox. code 3 Code prov.	Shipping name 4 Appellation réglementaire Sodium hypochlorite A04-A05 Waste grease (pails in quatern)	Class / Classe 5 Sub. class(es) 6 Class(es) sub. UN No. 1512 Packing / Rsk gr. 7 G. d'emballage Quantity shipped / Quantité expédiée 900 Kg 3 Quantity received / Quantité reçue 200 Kg 1 Units / Unités L / or / ou Kg Pails - ent. / Fûts Pts. state / État prov. S Pri. state / État prov. S
Notice No. 11 N° de notification	Shipmet 12 N° de type de la notification C / De D or R code 13 D or R code Code C Code ou R Code C Code H Code Y Export Import Code(s) de douanes	Base Annex VIII or OECD Code 14 Base Annexe VIII ou Code OCDE Arrivee VIII de Base ou Code OCDE National code in country of / Code du pays Customs code(s) 15 Code(s) de douanes
International use only		
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. / Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimés): Jacques Dion Signature: [Signature] Tel No. / N° de tél. 514 940 1230		
Date shipped / Date d'expédition 21 Year / Année 08 Month / Mois 09 Day / Jour 02 Time / Heure 15h00 Scheduled arrival date / Date d'arrivée prévue 08 09 07 10h00 A.M. / P.M.		
Receiver / consignee information same as in Part A. / Les renseignements du récepteur / destinataire est la même qu'à la Partie A. Les renseignements du récepteur / destinataire est la même qu'à la Partie A. <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, rempli la case ci-dessous Company name / Nom de l'entreprise <b>Ecolocycle inc</b> Mailing address / Adresse postale 7450 av. Pion Email / Courriel électronique St-Hyacinthe Province Postal code / Code postal J2R 1R9 Tel No. / N° de tél. 450 796 6660 Receiving address / Adresse de lieu de destination ecolocycle@ecolocycle.com		
Date received / Date de réception 22 Year / Année 08 Month / Mois 10 Day / Jour 07 Time / Heure 10h00 A.M. / P.M.		
If waste or recyclable material to be transferred, specify intended company name. / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire. Quantity received / Quantité reçue 900 Kg 200 Kg Units / Unités L / or / ou Kg Comments / Commentaires Handling 23 Code / Code Accepted / Relâché Refused / Refusé Code / Code Decort. 24 Accepted / Relâché Refused / Refusé Code / Code Decort. 25 Accepted / Relâché Refused / Refusé Code / Code Decort. 26 Accepted / Relâché Refused / Refusé Code / Code Decort. 27 Accepted / Relâché Refused / Refusé Code / Code Decort. 28 Accepted / Relâché Refused / Refusé Code / Code Decort. 29 Accepted / Relâché Refused / Refusé Code / Code Decort. 30 Accepted / Relâché Refused / Refusé Code / Code Decort. 31 Accepted / Relâché Refused / Refusé Code / Code Decort. 32 Accepted / Relâché Refused / Refusé Code / Code Decort. 33 Accepted / Relâché Refused / Refusé Code / Code Decort. 34 Accepted / Relâché Refused / Refusé Code / Code Decort. 35 Accepted / Relâché Refused / Refusé Code / Code Decort. 36 Accepted / Relâché Refused / Refusé Code / Code Decort. 37 Accepted / Relâché Refused / Refusé Code / Code Decort. 38 Accepted / Relâché Refused / Refusé Code / Code Decort. 39 Accepted / Relâché Refused / Refusé Code / Code Decort. 40 Accepted / Relâché Refused / Refusé Code / Code Decort. 41 Accepted / Relâché Refused / Refusé Code / Code Decort. 42 Accepted / Relâché Refused / Refusé Code / Code Decort. 43 Accepted / Relâché Refused / Refusé Code / Code Decort. 44 Accepted / Relâché Refused / Refusé Code / Code Decort. 45 Accepted / Relâché Refused / Refusé Code / Code Decort. 46 Accepted / Relâché Refused / Refusé Code / Code Decort. 47 Accepted / Relâché Refused / Refusé Code / Code Decort. 48 Accepted / Relâché Refused / Refusé Code / Code Decort. 49 Accepted / Relâché Refused / Refusé Code / Code Decort. 50 Accepted / Relâché Refused / Refusé Code / Code Decort. 51 Accepted / Relâché Refused / Refusé Code / Code Decort. 52 Accepted / Relâché Refused / Refusé Code / Code Decort. 53 Accepted / Relâché Refused / Refusé Code / Code Decort. 54 Accepted / Relâché Refused / Refusé Code / Code Decort. 55 Accepted / Relâché Refused / Refusé Code / Code Decort. 56 Accepted / Relâché Refused / Refusé Code / Code Decort. 57 Accepted / Relâché Refused / Refusé Code / Code Decort. 58 Accepted / Relâché Refused / Refusé Code / Code Decort. 59 Accepted / Relâché Refused / Refusé Code / Code Decort. 60 Accepted / Relâché Refused / Refusé Code / Code Decort. 61 Accepted / Relâché Refused / Refusé Code / Code Decort. 62 Accepted / Relâché Refused / Refusé Code / Code Decort. 63 Accepted / Relâché Refused / Refusé Code / Code Decort. 64 Accepted / Relâché Refused / Refusé Code / Code Decort. 65 Accepted / Relâché Refused / Refusé Code / Code Decort. 66 Accepted / Relâché Refused / Refusé Code / Code Decort. 67 Accepted / Relâché Refused / Refusé Code / Code Decort. 68 Accepted / Relâché Refused / Refusé Code / Code Decort. 69 Accepted / Relâché Refused / Refusé Code / Code Decort. 70 Accepted / Relâché Refused / Refusé Code / Code Decort. 71 Accepted / Relâché Refused / Refusé Code / Code Decort. 72 Accepted / Relâché Refused / Refusé Code / Code Decort. 73 Accepted / Relâché Refused / Refusé Code / Code Decort. 74 Accepted / Relâché Refused / Refusé Code / Code Decort. 75 Accepted / Relâché Refused / Refusé Code / Code Decort. 76 Accepted / Relâché Refused / Refusé Code / Code Decort. 77 Accepted / Relâché Refused / Refusé Code / Code Decort. 78 Accepted / Relâché Refused / Refusé Code / Code Decort. 79 Accepted / Relâché Refused / Refusé Code / Code Decort. 80 Accepted / Relâché Refused / Refusé		



MOVEMENT DOCUMENT / MANIFEST  
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement Document/Manifest conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement/manifester est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

Movement Document / Manifest Reference No.  
N° de référence du document de mouvement/manifester

1/2  
9291040-5

<b>A</b> Generator / consigneur Producteur / expéditeur		Registration No. / Provincial ID No. N° d'immatriculation - dtd provincial	
Company name / Nom de l'entreprise Baffinland Iron Mines		City/Ville Mines	
Mailing address / Adresse postale 110 Adelaide W Toronto Ontario		Postal code / Code postal M5H1T1	
Email / Courriel électronique Cheryl-wray@baffinland.com		Tel No. / N° de tél. 416 364 0820	
Shipping address / Adresse de livraison Mang River / Mine Inlet site		Province Nunavut	
City/Ville Nunavut		Postal code / Code postal	
Intended Receiver / consignee Receptionnaire / destinataire prévu Ecocycle inc.		Registration No. / Provincial ID No. N° d'immatriculation - dtd provincial	
Mailing address / Adresse postale 7950 av. Pion, St-Hyacinthe, Qc		Postal code / Code postal J2R 1R9	
Email / Courriel électronique ecocycle@ecocycle.com		Tel No. / N° de tél. 450 796 6660	
Receiving address / Adresse de livraison 450 boul. Gérard - Cadieux (Via Port Valley field)		Province Quebec	
City/Ville Valleyfield		Postal code / Code postal J6T 6E4	
11		2	
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97		98	
99		100	

Generator / consigneur certification / certify that the information contained in Part A is correct and complete. Attestation du producteur / expéditeur : atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print)  
Nom de l'agent autorisé (caractères d'imprimés)  
Jacques Din

Signature  
Signature  
[Signature]

Tel No. / N° de tél.  
514 940 1230

21

Date shipped / Date d'expédition  
Year / Année  
Month / Mois  
Day / Jour  
08 10 18

Time / Heure  
AM / PM  
08 11 21

Scheduled arrival date / Date d'arrivée prévue  
Year / Année  
Month / Mois  
Day / Jour  
08 11 21

22

Special handling / Manutention spéciale  
As follows / Comme :  
☐ Attached / Collé  
☐ As follows / Comme :

23

Receiver / consignee certification / certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire : atteste que tous les renseignements à la partie C sont exacts et complets.

Name of authorized person (print)  
Nom de l'agent autorisé (caractères d'imprimés)  
[Signature]

Tel No. / N° de tél.  
450 796 6660

24

Reference Nos. of other movement documents (manifests) used /  
N° de référence des autres documents de mouvement/manifester utilisés

25

Receiver / consignee  
Receptionnaire / destinataire

26

Company name / Nom de l'entreprise  
Ecocycle inc.

Mailing address / Adresse postale  
7950 av. Pion, St-Hyacinthe, Qc

Province  
Quebec

Postal code / Code postal  
J2R 1R9

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This Movement document/manifesti conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

Movement Document / Manifest Reference No.  
N° de référence du document de mouvement/manifeste

Movement Document / Manifest Reference No.  
N° de référence du document de mouvement/manifeste

<b>A</b> Generator / consigneur Producteur / expéditeur		Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		<b>B</b> Carrier Transporteur		Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial	
Company name / Nom de l'entreprise <b>Battinland Inc</b>		City / Ville <b>Niagara</b>		Province <b>Ontario</b>		Postal code / Code postal <b>M5H 1T1</b>	
Mailing address / Adresse postale <b>20 Adelaide W</b>		City / Ville <b>Toronto</b>		Province <b>Ontario</b>		Postal code / Code postal <b>M5H 1T1</b>	
E-mail / Courriel électronique <b>Cheryl.wray@battinland.com</b>		Tel. No. / N° de tél. <b>416 364 9520</b>		Company name / Nom de l'entreprise <b>Ecolocycle inc.</b>		City / Ville <b>St-Hyacinthe</b>	
Shipping address / Adresse de lieu de destination <b>Mary River / Milne lot site</b>		Province <b>Manitoba</b>		Postal code / Code postal <b>R1R 1R9</b>		Company name / Nom de l'entreprise <b>Ecolocycle inc.</b>	
Intended Receiver / consignee Réceptionnaire / destinataire prévu <b>Ecolocycle inc</b>		City / Ville <b>St-Hyacinthe</b>		Province <b>Quebec</b>		Postal code / Code postal <b>R1R 1R9</b>	
Mailing address / Adresse postale <b>7950 av. Pion</b>		City / Ville <b>St-Hyacinthe</b>		Province <b>Quebec</b>		Postal code / Code postal <b>R1R 1R9</b>	
E-mail / Courriel électronique <b>ecolocycle@ecolocycle.com</b>		Tel. No. / N° de tél. <b>450 796 6060</b>		Company name / Nom de l'entreprise <b>Ecolocycle inc.</b>		City / Ville <b>St-Hyacinthe</b>	
Receiving address / Adresse de lieu de réception <b>950 boul. Girard - Cadieux (Unité Valleyfield)</b>		Province <b>Quebec</b>		Postal code / Code postal <b>J6T 6L4</b>		Company name / Nom de l'entreprise <b>Ecolocycle inc.</b>	
City / Ville <b>Valleyfield</b>		Province <b>Quebec</b>		Postal code / Code postal <b>J6T 6L4</b>		Company name / Nom de l'entreprise <b>Ecolocycle inc.</b>	
Year / Année <b>08</b>		Month / Mois <b>10</b>		Day / Jour <b>18</b>		Signature <b>Michel Bozais</b>	
Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimés) <b>Michel Bozais</b>		Title No. / N° de tél. <b>450 796 6060</b>		Signature <b>[Signature]</b>		Title No. / N° de tél. <b>450 796 6060</b>	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
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Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	
Port of entry Port d'entrée		International use only Utilisation internationale		Port of exit Port de sortie		International use only Utilisation internationale	



MOVEMENT DOCUMENT / MANIFEST  
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation. Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

9291038-9

**A** Generator / consigneur  
Producteur / expéditeur

**B** Carrier  
Transporteur

**C** Receiver / consignee  
Réceptionnaire / destinataire

Registration No. / Provincial ID No.  
N° d'immatriculation - dtd provincial

Company name / Nom de l'entreprise  
Baffinland Iron Mines

Company name / Nom de l'entreprise  
Cardale H transport Inc.

Receiver / consignee information same as in Part A  
Les renseignements du réceptionnaire / destinataire est la même qu'à la partie A

Mailing address / Adresse postale  
120 Adelaide W Toronto Ontario M5H 1T1

Mailing address / Adresse postale  
2325 rue Daurais, MA, QC H1N 3B5

Receiver / consignee information same as in Part A  
Les renseignements du réceptionnaire / destinataire est la même qu'à la partie A

Email / Courriel électronique  
Cheryl.wray@baffinland.com

Email / Courriel électronique  
Cardale H transport Inc.

Company name / Nom de l'entreprise  
Horizon env. inc.

Shipping address / Adresse de lieu de livraison  
May River / Maye Inlet site

Vehicle / Véhicule  
Trailer - Rail car No. 1

Registration No. / N° d'immatriculation

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Nunavut

Port of entry  
Port d'entrée

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

Intended Receiver / consignee  
Receptionnaire / destinataire prévu

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

Mailing address / Adresse postale  
120 route 155 Grands-Pis QC G0X 1H0

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

Email / Courriel électronique  
epauvin@horizonenviro.com

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
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Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
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Port of exit  
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Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
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Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

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Grands-Pis

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Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

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Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

City / Ville  
Grands-Pis

Port of exit  
Port de sortie

Company name / Nom de l'entreprise  
Horizon env. inc.

#### SCHEDULE 4

Weight ticket from  
Horizon Environnement





HORIZON ENVIRONNEMENT INC.  
120, Route 155  
Grandes-Piles (Québec) G0X 1H0  
Tél. : 1-800-545-7657 • (819) 538-3921  
Fax : (819) 538-0889  
Manon Thiffault ( ) -

## BILLET

N° T.P.S. : 140578741 RT

N° T.V.Q. : 1017578304

**N° DU BILLET :** 53695

N° DU CONTRAT : CHE-1731

BON DE COMMANDE :

DATE : 08-12-08

HEURE ENTRÉE : 14:49

HEURE SORTIE : 15:27

CLIENT  
STABILIS INC.  
3333, QUEEN MARY,  
MONTREAL, QUEBEC  
H3V 1A2

GENERATEUR  
STABILIS  
3333, QUEEN MARY, SITE: BAFFINLAND, NUNAVUT  
MONTREAL, QUEBEC  
H3V 1A2

Produit (001-C) SOLS CONTAMINES CELLULE

No Client STABIL01

ZONE DE DÉCHARGEMENT : (C-3) CELLULE 3

TÉL.  
TRANSPORTEUR  
TRANSPORTEUR INDÉPENDANT

## DÉTAIL DES PRIX

POIDS BRUT : 46890 Kg

TARE : 18360 Kg

POIDS NET : 28530 Kg

NO PRÉAVIS

BON DE TRAVAIL

# COURTIER

N° D'IMMATRICULATION : (435042) EYG

# MANIFEST (Can)

# MANIFEST (US)

N° DE CONNAISSANCE :

### DÉCLARATION DU TRANSPORTEUR :

Je déclare que tous les renseignements ci-dessus sont véridiques et que le contenu de ma cargaison ne contient aucune matière dangereuse tel que défini par le Règlement sur les matières dangereuses du Québec.

Nom [Signature]  
(CARACTÈRE D'IMPRIMERIE)

Signature \_\_\_\_\_

57884



HORIZON ENVIRONNEMENT INC.  
120, Route 155  
Grandes-Piles (Québec) G0X 1H0  
Tél. : 1-800-545-7657 • (819) 538-3921  
Fax : (819) 538-0889  
Manon Thiffault ( ) -

## BILLET

N° T.P.S. : 140578741 RT

N° T.V.Q. : 1017578304

**N° DU BILLET :** 53688

N° DU CONTRAT : CHE-1731

BON DE COMMANDE :

DATE : 08-12-08

HEURE ENTRÉE : 13:24

HEURE SORTIE : 14:03

CLIENT  
STABILIS INC.  
3333, QUEEN MARY,  
MONTREAL, QUEBEC  
H3V 1A2

TÉL.  
GÉNÉRATEUR  
STABILIS  
3333, QUEEN MARY, SITE: BAFFINLAND, NUNAVUT  
MONTREAL, QUEBEC  
H3V 1A2

Produit (001-C) SOLS CONTAMINÉS CELLULE

No Client 3TABIL01

ZONE DE DÉCHARGEMENT : (C-3) CELLULE 3

TÉL.  
TRANSPORTEUR  
TRANSPORTEUR INDÉPENDANT

## DÉTAIL DES PRIX

POIDS BRUT : 51050 Kg

TARE : 19930 Kg

POIDS NET : 31920 Kg

NO PRÉAVIS

BON DE TRAVAIL

# COURTIER

N° D'IMMATRICULATION : (L265116) EYG

# MANIFEST (Can)

# MANIFEST (US)

N° DE CONNAISSEMENT :

### DÉCLARATION DU TRANSPORTEUR :

Je déclare que tous les renseignements ci-dessus sont véridiques et que le contenu de ma cargaison ne contient aucune matière dangereuse tel que défini par le Règlement sur les matières dangereuses du Québec.

Nom Stéphane Gingras

(CARACTÈRE D'IMPRIMERIE)

Signature Stéphane Gingras

57877

SCHEDULE 6

SHIPPING DOCUMENTATION

1<sup>st</sup> trip and 2<sup>nd</sup> trip



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

6818

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Yves Perron

**Attention: M. Benoit Dion**

**Date Shipped: October 7.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
104 Drums	Pallets w/4 drums each of Waste Dust Remover N/R	9843	104	104
	Pallets as follows:			
	M62-M89-M97-M87-M78-M63-M64-M77-M76-M96-M79-M75-M106-M93-M88-M92-M107-M105-M65-M82-M90-M98-M99-M84-M101-M80 (TOTAL 26 PALLETS)			
	Vessel Avataq			
	Annexe # 08-344/08-345/08-346/08-347			
	Cargo Receipt # T1277 & T1278			
<b>Total:</b>			<b>104</b>	<b>104</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



#104



# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T1277

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	QC, ÉCOLOCYCLE	Date	07/10/08
Destination	7950 St-HYACINTHE, QC. J2R 1R9		
Expéditeur Shipper	BAFFINLAND IRON MINES (QE)	Origine Origin	PORT VALLEYFIELD
Navire / Vessel	AVATAQ	Annexe #	08-344/08-345/ 08-346/08-347

ITEM #	DESCRIPTION	KG
1	M62	
2	M89	
3	M97	
4	M87	
5	M78	
6	M63	
7	M64	
8	M77	
9	M76	
10	M96	
11	M79	
12	M75	
13	M106	
14	M93	
15	M88	
16	M92	
17	M107	
18	M105	
19	M65	
20	M82	
TOTAL		

Pallet (4) Drums (Waste Dust Remover) 400

20 x 4 = 80 DRUMS

Tot. 104 DRUMS



#104



# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1278

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOCYCLE	Date	07/10/08
Destination	7950 ST-HYACINTE, QC J2R 1R9		
Expéditeur Shipper	BAFFINLAND IRON MINES (Q.E)	Origine Origin	PORT VALLEYFIELD
Navire / Vessel	AVATAQ	Annexe #	084345/08-347

ITEM #	DESCRIPTION	KG
1	M90	PALLET (4) DRUMS, Waste Dust Remover M/R
2	M98	
3	M99	
4	M84	
5	M101	6 x 4 = 24 DRUMS
6	M80	
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		





1-800-363-1067  
7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9  
Tél: 514-586-4054

## BON DE TRAVAIL

FOR-17

Bon de travail

06818

### A. Générateur

Nom:

Stabilis

Téléphone:

Adresse-Ville:

3035 de Valley field

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)		Pige 2 (cm)		Dossier
P50301 M13-2435						
Heure	Endroit	Heure	Endroit	Heure	Endroit	
Déb. Transport	14:30	Déb. Transport	14:30	Déb. Transport		
Fin Transport	15:15	Fin Transport	15:15	Fin Transport		
Début Travail	14:30	Début Travail		Début Travail		
Fin Travail	15:15	Fin Travail		Fin Travail		

### Description et matériel

21 palettes de 2000 kg. B. 1000 x 1200 x 1200 mm.

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition

Nom du responsable-client

Signature du client

7/10/8

X

### B. Transporteur

Écolocycle Inc.

### C. Destinataire

Immatriculation	Unité N°	Nom:
8142	524	Écolocycle
814234	000	Adresse: 7950 Pion, Ste Pion
Type de camion	N° Conteneur	Volume
20' / 1000	0003	
Nom du chauffeur	Date	Arrivée
W. Pion	7/10/8	Départ (h) Arrivée (h)
Nom du responsable	Date	
		7/10/8



**Address:**

Same as Ship To

Phone: 1-800-363-1067

Fax: 1-450-796-4525

**Ship To:**

Name: M.Benoit Dion

Company: QC Ecocycle

Address: 7950 Ave Pion

City: St. Hyacinthe, Quebec

J2R 1R9

**Original PO Number**
**Vendor's RA Number**
**Shipped Via**

Their Transport

**W/B Number**

8325

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

S. Bouchard

**Attention: M. Benoit Dion**
**Date Shipped: October 7.08**
**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
64 Drums	Pallets w/4 drums each of Waste Dust Remover N/R	9511	64	64
	Pallets as follows: M100-M72-M81-M73-M66-M67- M102-M103-M94-Mich-M95-M83- M60-M61-M69-M86 (Total 16 pallets)			
12 Totes	Waste Oil N/R (tote 1000L each)	9511	12	12
	M12-M11-M434-M15-M34-M13-M16- M32-M23-M33-M21-M20			
	Vessel Avataq V2R			
	Annexe # 08-344/08-345/08- 377/08-339			
	Cargo Receipt # T1281 & T1282			
		<b>Total:</b>	<b>76</b>	<b>76</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.





Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1281

Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
SP. ECOLOGICALE		7/10/08	
Destination			
7950, St-HYACINTHE QC J6R 1R9			
Expéditeur Shipper		Origine Origin	
BAFFINLAND			
Navire / Vessel		Annexe #	
VJR		02-34408-345/ 02-377108-339/	
ITEM #	DESCRIPTION		KG
1	M100	Waste Dust Remover NIR	400
2	M72	"	"
3	M81	"	"
4	M73	"	"
5	M66	"	"
6	M67	" 16 x 4 = 64 DRUMS	"
7	M102	" WASTE DUST REMOVER	"
8	M103	"	"
9	M94	"	"
10	N/A	M104	"
11	M95	"	"
12	M83	"	"
13	M60	"	"
14	M61	"	"
15	M69	"	"
16	M86	"	"
17	M12	Waste Oil (Tote 1000L)	700
18	M11	"	"
19	M134	" 12 TOTES x 1000 Lt.	"
20	M15	"	"
TOTAL			9500
Transporteur Carrier		Lic./No. Unité Lic./Unit No.	
EKOLOGICALE		9511	
Nom en lettres moulées-Name in block letters		Vérificateur-Checker	
Sylvain Bouchard		[Signature]	
Receiver Signature Receveur		Shipper Signature Expéditeur	





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1282

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
DC ECOLOGY		7/10/08	
Destination ST. HYACINTHE			
Expéditeur Shipper		Origine Origin	
BAFFINLAND			
Navire / Vessel		Annexe #	
VJR		08-339/08-340	
ITEM #	DESCRIPTION	KG	
1	M34	Waste OIL N/R (TOTE 1000 L)	
2	M13	700	
3	M16	4	
4	M32	4	
5	M23	4	
6	M33	4	
7	M21	4	
8	M20	4	
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
TOTAL		5600	
Transporteur Carrier		Lic./No. Unité Lic./Unit No.	
ECOLOGY		9511	
Nom en lettres moulées-Name in block letters		Vérificateur-Checker	
SYLVAIN BELCHARD			
Receiver Signature Receveur		Shipper Signature Expéditeur	



Nom:

Téléphone:

Adresse-Ville:

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)	Pige 2 (cm)	Dossier

	Heure	Endroit		Heure	Endroit		Heure	Endroit
Déb. Transport			Déb. Transport			Déb. Transport		
Fin Transport			Fin Transport			Fin Transport		
Début Travail			Début Travail			Début Travail		
Fin Travail			Fin Travail			Fin Travail		

## Description et matériel

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition	Nom du responsable-client	Signature du client
07/10/07		

B. Transporteur

Écolocycle inc.

C. Destinataire

Immatriculation		Unité N°		Nom:	
572 405		93 11		Adresse: 79-10	
				Ville: Sarny Tél: 418-261-060	
Type de camion		N° Conteneur	Volume	Arrivée	
				Départ (h): Arrivée (h):	
Nom du chauffeur		Date		Nom du responsable	
Kouhard		07-10-07			
Signature du chauffeur		Signature du responsable			



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

8288

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Normand

**Attention: M. Benoit Dion**

**Date Shipped: October 7.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
8 Totes	Waste Oil 1000L N/R as follows: M24-M10-M9-M18-M3-M6-M2-M36		8	8
5 drums	Waste Oil 1000L N/R as follows: Pallet M53p(3)-M54p (2)		5	5
57 Drums	Pallets w/4 drums each of Wasted Fuel as follows: M253-M250-M305-M50-M270-M239-M182-M247p(3)-M232-M-228-M54p(2)-M40-M244-M264-M207 (Total 13 full pallets + 5 drums)		57	57
1 drum	Wasted Gas Pallet M53p(1)		1	1
1 drum	Oily water Pallet M247p(1)		1	1
	Vessel Avataq Annexe # 08-366/08-360/08-363/08-338/08-339/-08-340/08-341/08-342/-08-359/08-358/08-354/08-361 Cargo Receipt # T1287 & T1288			
<b>Total:</b>			<b>72</b>	<b>72</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



**Address:** Same as Ship To

Phone: 1-800-363-1067  
 Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
 Company: QC Ecocycle  
 Address: 7950 Ave Pion  
 City: St. Hyacinthe, Quebec  
 J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

8288

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Normand

**Attention: M. Benoit Dion**

**Date Shipped: October 7.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
8 Totes	Waste Oil 1000L N/R as follows:		8	8
	M24-M10-M9-M18-M3-M6-M2-M36			
5 drums	Waste Oil 1000L N/R as follows:		5	5
	Pallet M53p(3)-M54p (2)			
57 Drums	Pallets w/4 drums each of Wasted Fuel as follows:		57	57
	M253-M250-M305-M50-M270-M239-M182-M247p(3)-M232-M-228-M54p(2)-M40-M244-M264-M207 (Total 13 full pallets + 5 drums)			
1 drum	Wasted Gas Pallet M53p(1)		1	1
1 drum	Oily water Pallet M247p(1)		1	1
	Vessel Avataq			
	Annexe # 08-366/08-360/08-363/08-338/08-339/08-340/08-341/08-342/-08-359/08-358/08-354/08-361			
	Cargo Receipt # T1287 & T1288			
<b>Total:</b>			<b>59</b>	<b>59</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



8 Totes Waste oil  
5 ~~5~~ DRUMS WASTE FUEL  
5 ~~5~~ DRUMS ✓ OIL  
1 ✓ GAS  
1 ✓ oily water



Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

## Reference

T 1287

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		ECOLOCYCLE		Date 07/10/08	
Destination		7950 St-HYACINTHE, QC J2R 1R9			
Expéditeur Shipper		BIFINLAND IRON MINE (QE)		Origine Origin Port de Valenfield	
Navire / Vessel		AVATAQ			
ITEM #		DESCRIPTION		KG	
1	M24	Tote waste oil 1000L N/R		700	
2	M10	" "		700	
3	M9	" "		700	
4	M18	" "		700	
5	M3	" "		700	
6	M253	PALLET (4) DRUMS Wasted Fuel		400	
7	M6	Tote waste oil 1000L N/R		700	
8	M2	" "		700	
9	M36	" "		700	
10	M250	PALLET (4) DRUMS Wasted Fuel		400	
11	M305	" "		400	
12	M50	" "		400	
13	M270	" "		400	
14	M239	" "		400	
15	M182	" "		400	
16	M53	PALLET (3) WASTED oil / (1) waste gas		400	
17	M247	PALLET (3) Wasted fuel / (1) oily water ✓		400	
18	M232	PALLET (4) Wasted fuel		400	
19	M228	(PALLET) (4) Wasted fuel		400	
20					
TOTAL					





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T1288**

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOLOCYCLE	Date	07/10/08
Destination	7950 St-Hyacinthe, Qc J2R 1R9		
Expéditeur Shipper	BAFFINLAND IRON MINE (QÉ)	Origine Origin	Port de Valleyfield
Navire / Vessel	AVATAQ	Annexe #	06-341/08-342/08-356/08-360

ITEM #	DESCRIPTION	KG
1	M54 PALLET (2) Wasted Fuel / 2 wasted Oil	400
2	M40 PALLET (4) Drums Wasted fuel	400
3	M244 " "	400
4	M264 " "	400
5	M207 " "	400
6		
7		
8		
9		
10	13 x 4 = 52 Wasted Fuel	
11	52 + 3 + 2 = 57 "	"
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		





1-800-363-1067

7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9

Tél: 514-536-4055-4

## BON DE TRAVAIL

FOR-17

Bon de travail

08288

## A. Générateur

Nom:

Rue de la Vallée Pion 2200

Téléphone:

Adresse-Ville:

Boul. Foch 2200 St-Hyacinthe

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)	Pige 2 (cm)	Dossier
				2438

	Heure	Endroit		Heure	Endroit		Heure	Endroit
Déb. Transport	10:30	2200	Déb. Transport	11:00	2200	Déb. Transport		
Fin Transport	11:30	2200	Fin Transport		2200	Fin Transport		
Début Travail			Début Travail			Début Travail		
Fin Travail			Fin Travail			Fin Travail		

## Description et matériel

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition	Nom du responsable-client	Signature du client
4/10/00	Thierry DUBOIS	Thierry DUBOIS

## B. Transporteur

Ecolocycle inc.

## C. Destinataire

Immatriculation		Unité N°		Nom: <u>ETIENNE</u>			
<u>L-58498</u>		<u>2200</u>		Adresse: <u>7910</u>			
				Ville: <u>St-Hyacinthe</u> Tél.: <u>514-536-4055</u>			
Type de camion		N° Conteneur	Volume	Arrivée			
<u>650 2200</u>				Départ (h): Arrivée (h):			
Nom du chauffeur		Date		Nom du responsable		Date	
<u>Thierry DUBOIS</u>		<u>4/10/00</u>					

Document d'expédition

TO Étiopie

Numéro d'envoi :

1/1

Date :

7/10/2008

Feuille 1 de 1

Expéditeur

BAFFINLAND IRON MINES (UNDER QE)  
FROM PORT VALLEYFIELD

Instructions spéciales

Description des marchandises

No/type de colis	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
Drum	Diesel (55x)	3	N/A	1200	II	5500
Drum	Gasoline 21x	3	N/A	1200	II	1000

Téléphone : Numéro d'urgence 24 heures de l'expéditeur

STAG

Numéro PIU (si applicable)

Tél. : Canutec



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

205571

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

D'Anjou

**Attention: M. Benoit Dion**

**Date Shipped: October 7.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
14 drums	Pallets w/4 drums of Wasted Oil as follows: M44p(2)-M188-M225p(1)-M348-M352p(3) (Total 2 full pallets + 6 drums)	0725-25356	14	14
71 drums	Pallets w/4 drums of Waste Fuel as follows: M44p(2)-M41-M47-M52-M55p(3)-M173-M181p(3)-M191-M193p(3)-M194-M170-M192-M200-M201-M223-M224-M225p(3)-M352p(1)-M49-M257 (Total 14 full pallets + 15 drums)	0725-25356	71	71
1 drum	Wasted Gas Pallet M193p(1)		1	1
6 drums	Oily water Pallets M55p(1)-M181p(1)-M291		6	6
14 drums	Pallets w/4 drums of wasted Dust Remover as follows: M68p(3)-M70-M71-M74p(3) (Total 2 full pallets + 6 drums)		14	14
	Vessel Avataq			
	Annexe # 08-351/08-353/08-354/08-355/08-356-8-341/08-342/08-343/08-344/08-345			
	Cargo Receipt # T1289 & T1290			
<b>Total:</b>			<b>106</b>	<b>106</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.









Nunavut Eastern Arctic Shipping Inc.  
Port de Valleyfield, 950 boul. Gérard-Cadiéux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1290

Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOLOCYCLE	Date	07/10/08
Destination	7950 St-HYACINTHE	Origine Origin	Port Valleyfield
Expéditeur Shipper	LAFFINLAND IRON MINE (Q.E)	Annexe #	08-358/08-365/08-370
Navire / Vessel	AVATAQ		

ITEM #	DESCRIPTION	KG
1 M 223	Pallet (4) Drums, wasted fuel	400
2 M 224	" "	400
3 M 225	Pallet (1) wasted oil, (3) wasted fuel	400
4 M 291	Pallet (4) oily water	400
5 M 348	Pallet (4) wasted oil	400
6 M 352	Pallet (3) wasted oil, (1) wasted fuel	400
7 M 49	Pallet (4) Wasted fuel	400
8 N/A M 257	" "	
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

TOTAL

Transporteur Carrier	ECOLOCYCLE	Lic./No. Unité Lic./Unit No.	
Nom en lettres moulées - Name in block letters	ROBERT DUBOIS	Vérificateur - Checker	
Receiver Signature Receveur		Shipper Signature Expéditeur	

Terminal NFAS Terminal



100

Date: 7-1-00

Feuille 1 de 1

Expéditeur  
BAFFIN LAND IRON MINES (UNDER QE)

### Instructions spéciales

Expéditeur  
BAFFINLAND IRON MINES (UNDER Q.E.)  
FROM: PORT VALLEYFIELD

No/type de Colis	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse b. (kg)
Serms	Flacon 20ml	2	N/A	602	H1	7.1
Osmm	Osmm 11	2	N/A	602	H1	7.1

1891

Numéro PIU (si applicable)

Tél. : Canutec

1750



**Address:**

Same as Ship To

**Ship To:**

Name: M.Benoit Dion  
 Company: QC Ecocycle  
 Address: 7950 Ave Pion  
 City: St. Hyacinthe, Quebec  
 J2R 1R9

Phone: 1-800-363-1067

Fax: 1-450-796-4525

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

6820

**Attention: M. Benoit Dion**

**Date Shipped: October 7.08**

**Special Instructions**

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Yves Perron

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
5 drums	Drums of Wasted Oil as follows:	9843	5	5
	M353p(3)-M58p(1)- M266p(1)			
53 drums	Pallets w/4 drums of Waste Fuel as follows:	9843	53	53
	M353p(1)-M58p(3)-M180-M203-M265-M307-M266p(3)-M308-M177-M261-M262p(3)-M236-M226-M178p(3)-M233 (Total 10 full pallets + 13 drums)			
1 drum	Wasted Gas Pallet M262p(1)	9843	1	1
37 drums	Pallets w/4 drums of Oily water as follows:	9843	37	37
	M332-M124-M158-M108-M109-M213-M152-M160-M294-M178p(1) (Total 9 full pallets + 1 drum)			
	Vessel Avataq - V2R			
	Annexe # 08-370/08-343/08-354/08-356/08-368/08-362/08-366/08-353/08-348/08-359/08-357/08-349/08-351/08-352			
	Cargo Receipt # T1291 & T1292			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



108

Fuel = 53 drums  
 Oil - 5 drums  
 GASOLINE 10 drums  
 oily water = 37 drums



**Nunavut Eastern Arctic Shipping Inc.**

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
 Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T1291**

**Reçu de Livraison / Delivery Receipt**

Consignataire Consignee	ECOCYCLE	Date	7/10/08
Destination	ST. HYACINTHE		
Expéditeur Shipper	BAFFINLAND	Origine Origin	
Navire / Vessel	VOR	Annexe	02-310/08-393/08-02-354/08-353

ITEM #	DESCRIPTION	KG
1	M353 ✓ 3 waste oil / 1 waste fuel	400
2	M58 ✓ 1 waste oil / 3 waste fuel	"
3	M120 ✗ 4 waste fuel	"
4	M203 ✗ " "	"
5	M332 ✓ 4 oily water	"
6	M2105 ✗ 4 waste fuel	"
7	M307 " "	"
8	M2106 ✓ 1 waste oil / 3 waste fuel	"
9	M308 ✗ 4 waste fuel	"
10	M177 ✗ " "	"
11	M2101 ✗ " "	"
12	M2102 ✗ 3 waste fuel / 1 waste gasoline	"
13	M236 ✗ 4 waste fuel	"
14	M124 ✓ 4 oily water	"
15	M158 ✓ " "	"
16	M108 ✓ " "	"
17	M109 ✓ " "	"
18	M213 ✓ " "	"
19	M152 ✓ " "	"
20	M1100 ✓ " "	"
TOTAL		





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

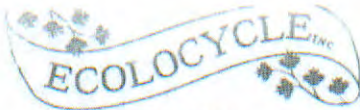
Reference

**T 1292**

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
Ecocycle		7/10/08	
Destination			
St. Olyacirthe			
Expéditeur Shipper		Origine Origin	
Baffinland			
Navire / Vessel		Annexe #	
VOR		08-365/08-358/ 08-359/08-353	
ITEM #	DESCRIPTION		KG
1	M294	✓ 4 oily water	400
2	M226	✓ 4 waste fuel	"
3	M178	✓ 3 waste fuel / 1 oily water	"
4	M233	✓ 4 waste fuel	"
5			
6			
7			
8			
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17			
18			
19			
20			
TOTAL			





1-800-363-1067

7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9

Tél: 514-586-4054

FOR-17

## BON DE TRAVAIL

Bon de travail

06820

## A. Générateur

Nom:

Téléphone:

Adresse-Ville:

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)	Pige 2 (cm)	Dossier
10030				

	Heure	Endroit		Heure	Endroit		Heure	Endroit
Déb. Transport	13:10	St-Hyacinthe	Déb. Transport	14:10	St-Hyacinthe	Déb. Transport		
Fin Transport	14:00	St-Hyacinthe	Fin Transport		St-Hyacinthe	Fin Transport		
Début Travail	13:10	St-Hyacinthe	Début Travail			Début Travail		
Fin Travail	14:15	St-Hyacinthe	Fin Travail			Fin Travail		

## Description et matériel

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition

Nom du responsable-client

Signature du client

## B. Transporteur

Écolocycle inc.

## C. Destinataire

Immatriculation	Unité N°	Nom:
10030	100	Écolocycle
		Adresse: 7950 Ave Pion
		Ville: St-Hyacinthe Tél: 514-586-4054
Type de camion	N° Conteneur	Volume
Box	1003	
Nom du chauffeur	Date	Arrivée
St-Hyacinthe	2003	Départ (h) Arrivée (h)
Nom du responsable	Date	
St-Hyacinthe	2003	

Document d'expédition

2000000000

Numéro d'envoi

Date

21/05/2000

Feuille de

Expéditeur

BAFFINLAND IRON MINES (UNDER DE)  
FROM PORT VALLEYFIELD

Instructions spéciales

Description des marchandises

No/type de colis	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
1	IRON ORE	1	N/A	2502	II	5000
2	IRON ORE	1	N/A	2502	II	5000

Téléphone : Numéro d'urgence 24 heures de l'expéditeur

Numéro PIU (si applicable)

Tél.: Canutec

21/05/2000



**Address:**

Same as Ship To

Phone: 1-800-363-1067

Fax: 1-450-796-4525

**Ship To:**

Name: M.Benoit Dion

Company: QC Ecocycle

Address: 7950 Ave Pion

City: St. Hyacinthe, Quebec

J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

6823

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Yves Perron

**Attention: M. Benoit Dion**

**Date Shipped: October 8.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
1 drum	Drum of Wasted Oil as follows: M358p(1)	9843	1	1
87 drums	Pallets w/4 drums of Waste Fuel as follows: M176p(3)- M304-M183-M358p(3)- M45-M234p(1)-M179-M238p(2) M51-M211-M171-M209-M210- M174p(3)-M221 -M222-M231-M227- M199-M42-M256-M186-M187- M255p(3) (Total 18 full pallets + 15 drums)	9843	87	87
2 drums	Wasted Gas Pallet Mm176p(1)- M174p(1)	9843	2	2
5 drums	Drums of Oily water as follows: M234p(3)-M238p(2)	9843	5	5
1 Drum	drum of Waste Coolant M255p(1)	9843	1	1
	Vessel Avataq - V2R			
	Annexe # 08-370/08-343/08- 354/08-356/08-368/08-362/ 08-366/08-353/08-348/08-359/08- 357/08-349/08-351/08-352			
	Cargo Receipt # T1293 & T1294			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Please contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



109

GAS = 2 DRUMS ✓

FUEL = 87 DRUMS ✓

OIL = 1 DRUM ✓

COOLANT = 1 DRUM ✓

city water 15 drums ✓



Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T1293

Reçu de Livraison / Delivery Receipt

Consignataire Consignee		ECOLOCYCLE		Date	8/10/08
Destination		7950 ST. HYACINTHE QC J2R 1K9			
Expéditeur Shipper		BAFFINLAND IRON MINES		Origine Origin	MILNE INLET
Navire / Vessel		V2R		Annexe #	08-359/08-306 08-341/08-342/08-353/08-354 08-355/08-356/08-357/08-358
ITEM #	DESCRIPTION			KG	
1					
2	M176	3 x waste fuel / 1 x gasoline		400	
3	M304	4 waste fuel		"	
4	M123	" " X		"	
5	M358	3 waste fuel / 1 waste oil		"	
6	M45	"		"	
7	M234	3 city water / 1 waste fuel		"	
8	M179	4 waste fuel		"	
9	M238	2 waste fuel / 2 city water		"	
10	M51	4 waste fuel		"	
11	M211	"		"	
12	M171	"		"	
13	M209	"		"	
14	M210	"		"	
15	M174	3 waste fuel / 1 gasoline		"	
16	M221	4 waste fuel		"	
17	M222	"		"	
18	M231	"		"	
19	M227	"		"	
20	M199	"		"	
TOTAL				7600	





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1294

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOLOGIC		Date	8/10/08
Destination	7950 St-Hyacinthe, QC J2R 1R9		Origine Origin	MILNE INLET
Expéditeur Shipper	Lapland Iron Mines		Annexe #	08-341108-354/08-361
Navire / Vessel	VAR			
ITEM #	DESCRIPTION	KG		
1	M-12 ✓ 4 waste fuel	400		
2	M256 ✓ "	"		
3	M184 ✓ "	"		
4	M187 ✓ "	"		
5	M255 ✓ 3 waste fuel / 1 waste coolant	4		
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL		2000		





1-800-353-1067

7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9

Tél: 514-564-1054

FOR-17

## BON DE TRAVAIL

Bon de travail

06823

## A. Générateur

Nom: S. L. L. Téléphone: \_\_\_\_\_Adresse-Ville: 101 de Valleyfield Code postal: \_\_\_\_\_

N° Commande	N° Analyse	Page 1 (cm)		Page 2 (cm)		Dossier	
101-108							
Heure	Endroit	Heure	Endroit	Heure	Endroit	Heure	Endroit
Déb. Transport	1:20	24 Avenue Pion	Déb. Transport	8	Valleyfield	Déb. Transport	
Fin Transport	1:40	Valleyfield	Fin Transport		24 Avenue Pion	Fin Transport	
Début Travail	1:20	Valleyfield	Début Travail		24 Avenue Pion	Début Travail	
Fin Travail	8:40	Valleyfield	Fin Travail		24 Avenue Pion	Fin Travail	

## Description et matériel

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition: 8/10/8 Nom du responsable-client: \_\_\_\_\_ Signature du client: \_\_\_\_\_

## B. Transporteur

Ecolocycle inc.

## C. Destinataire

Immatriculation	Unité N°	Nom: _____	
101-108	204	Adresse: _____	
101-108	204	Ville: _____ Tél.: _____	
Type de camion		N° Conteneur	Volume
Remorque Box			
Nom du chauffeur		Arrivée	
S. L. L.		Départ (h):	Arrivée (h):
Date		Nom du responsable	
8/10/8		Date	



Cont d'expédition

TO: E. O. A. V. C. E.

N° d'envoi :

Date :

2/10/2008

Feuille 1 de 1

Émetteur

FINLAND IRON MINES (UNDER QE)

M. PORT VALLEYFIELD

Instructions spéciales

Option des marchandises

Code de	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
1	DIESEL (85x)	1202	N/A	1202	E	
2	GASOLINE (2x)	1203	N/A	1203	E	

Remarque : Numéro d'urgence 24 heures de l'expéditeur

Numéro PIU (si applicable)

STAP. 1

500 1230

Tél. : Canutec



**Address:** Same as Ship To

Phone: 1-800-363-1067  
 Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
 Company: QC Ecocycle  
 Address: 7950 Ave Pion  
 City: St. Hyacinthe, Quebec  
 J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via** Their Transport

**W/B Number** 0

**BIM Shipper Signature** David Alexander

**Driver's Signature**

**Attention: M. Benoit Dion**

**Date Shipped: October 8.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
19 drums	Pallets w/4 drums of Wasted Oil as follows:		19	19
	M206p(1)-M184-M295p(1)- M175p(3)-M310p(1)-M298p(1)- M208p(2)-M172p(1)-M349- M252p(1)-M218p(1) (Total 2 full pallets + 11 drums)			
71 drums	Pallets w/4 drums of Wasted Fuel as follows:		71	71
	M206p(3)- M205-M56-M185-M46- M296-M237-M309-M295p(3)-M249- M310p(3)-M298p(3)-M208p(2)-M59- M351-M48			
	M172p(3)-M251 -M252p(3)- M218p(3) (Total 12 full pallets + 24 drums)			
1 drum	Wasted Gas Pallet M206p(1)		1	1
12 drums	Pallet w/4 Drums of Contaminated water as follows:		12	12
	M134-M123-M122			
1 Drum	drum of Waste Coolant M175p(1)		1	1
	Vessel Avataq - V2R			
	Annexe #08-356/08-343/08-354/08- 342/08-365/08-359/ 08-361/08-366/08-354/08-353/08- 350/08-342/08-349/08-357/08- 370/08-349			
	Cargo Receipt # T1295 & T1296			
<b>Total:</b>			<b>104</b>	<b>104</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



110

FUEL = 71 DRUMS

OIL = 19 DRUMS ✓

COOLANT = 1 DRUM ✓

WATER = 12 DRUMS ✓

GASOLINE = 1 DRUM ✓



Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1295

Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOCYCLE	Date	8/10/08
Destination	7950 ST. HYACINTHE, QC J2R 1R9		
Expéditeur Shipper	BAFFINLAND IRON MINES	Origine Origin	MILNE INLET
Navire / Vessel	V2R	Annexe #	08 - 356/343/354/342/367 359/361/362/363/353/350

ITEM #	DESCRIPTION	342/344/351 V51KG
1 M206	Pallet (3) Wasted fuel (1) Wasted gasoline	400
2 M205	Pallet (4) Wasted fuel	400
3 M56	" "	400
4 M185	" "	400
5 M46	" "	400
6 M184	X Pallet (4) Wasted oil	400
7 M296	✓ Pallet (4) Wasted fuel	400
8 M237	✓ " "	400
9 M309	✓ " "	400
10 M295	✓ Pallet (3) Wasted fuel, (1) Wasted oil	400
11 M175	X Pallet (3) Wasted oil, (1) Wasted coolant	400
12 M244	✓ Pallet (4) Wasted fuel	400
13 M310	✓ Pallet (3) Wasted fuel (1) Wasted oil	400
14 M298	✓ Pallet (3) Wasted fuel (1) Wasted oil	400
15 M208	✓ Pallet (2) Wasted fuel (2) Wasted oil	400
16 M59	✓ Pallet (4) Wasted fuel	400
17 M134	✓ Pallet (4) Wasted water	400
18 M361	✓ Pallet (4) Wasted fuel	400
19 M48	" "	400
20 M172	✓ Pallet (3) Wasted fuel, (1) Wasted oil	400
TOTAL		

Transporteur





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T 1296**

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee <b>ECOCYCLE</b>		Date <b>8/10/08</b>
Destination <b>7950 ST. HYACINTHE, QC J2R 1R9</b>		
Expéditeur Shipper <b>BAFFINLAND IRON MINES</b>	Origine Origin <b>MILNE INLET</b>	
Navire / Vessel <b>V2R</b>		Annexe # <b>08-370/08-26/08-357/08-34</b>

ITEM #	DESCRIPTION	KG
1	M349 Pallet X (4) Wasted oil	400
2	M251 Pallet V (4) Wasted fuel	400
3	M252 Pallet (3) Wasted fuel / 1 X Wasted oil	400
4	M218 Pallet (4) Wasted oil	400
5	M123 Pallet (4) Contaminated water	400
6	M122 Pallet (4) Contaminated water	400
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		

Transporteur

Docum. d'expédition

703 0000000000000000

Numéro d'envoi :

Date :

21/10/2008

Feuille 1 de 1

Expéditeur

BAFFIN LAND IRON MINES (UNDER QE)  
FROM PORT VALLEYFIELD

Instructions spéciales

Description des marchandises

No/type de colis	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
DRUMS	OIESSEL (LITR)	3	N/A	1200	II	6700
DRUMS	OSASUMENELIX	3	N/A	1200	II	100

Téléphone : Numéro d'urgence 24 heures de l'expéditeur

STAGNOS

(50) 999-000

Numéro PIU (si applicable)

Tél. : Canutec



**Address:** Same as Ship To  
 Phone: 1-800-363-1067  
 Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
 Company: QC Ecocycle  
 Address: 7950 Ave Pion  
 City: St. Hyacinthe, Quebec  
 J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via** Their Transport

**W/B Number** 11875

**Attention: M. Benoit Dion**

**Date Shipped: October 8.08**

**Special Instructions**

**BIM Shipper Signature** David Alexander

**Driver's Signature** Mario Pigeon

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
2 drums	Drum of Wasted Oil as follows: M215p(1) + M258p(1)	9809	2	2
47 drums	Pallets w/4 drums of Waste Fuel as follows: M217-M215p(3)-M214-M258p(3)- M219p(2)-M220-M306-M299-M57- M268-M297p(3)-M263-M260 (Total 9 full pallets + 11 drums)	9809	47	47
2 drums	Wasted Gas Pallet M219p(2)	9809	2	2
29 drums	Pallets w/4 drums of Contaminated Water as follows: M112-M139-M113-M129-M297p(1)- M128-M138-M242 (Total 7 full drums and 1 drum)	9809	29	29
	Vessel Avataq - V2R			
	Annexe #			
	Cargo Receipt # T1298			
<b>Total:</b>			<b>80</b>	<b>80</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



111

FUEL = 47 DRUMS ✓  
 OIL = 2 DRUMS ✓  
 WATER = 29 DRUMS ✓  
 GAS = 2 DRUMS ✓



# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
 Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1298

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
E COLOCYCLE		8/10/08	
Destination 7950 ST. HYACINTHE, QC J0R 1R9			
Expéditeur Shipper		Origine Origin	
BUFFINLAND IRON MINES		MILNE INLET	
Navire / Vessel		Annexe #	
VJR			

ITEM #	DESCRIPTION	KG
1	M217 ✓ 4 waste fuel	400
2	M215 ✓ 3 waste fuel / 1 waste oil	"
3	M214 ✓ 4 waste fuel	"
4	M251 ✓ 3 waste fuel / 1 waste oil	"
5	M219 ✓ 2 waste fuel / 2 waste gasoline	"
6	M220 ✓ 4 waste fuel	"
7	M306 ✓ "	"
8	M299 ✓ "	"
9	M110 4 contaminated water ~	"
10	M57 ✓ 4 waste fuel	"
11	M268 ✓ "	"
12	M139 4 contaminated water ~	"
13	M113 " ~	"
14	M129 " ~	"
15	M247 ✓ 3 waste fuel / 1 contaminated water	"
16	M138 4 contaminated water ~	"
17	M138 " ~	"
18	M242 " ~	"
19	M203 ✓ 4 waste fuel	"
20	M200 ✓ "	"
TOTAL		





Son de travail

11275

### A. Générateur

Nom:

Téléphone: \_\_\_\_\_

Adresse-Ville:

Code postal: \_\_\_\_\_

Adresse-Ville: _____			Code postal: _____						
N° Commande		N° Analyse		Page 1 (cm)		Page 2 (cm)		Dossier	
								17-5-98	
	Heure	Endroit		Heure	Endroit		Heure	Endroit	
Déb. Transport	14h	17-5-98	Déb. Transport			Déb. Transport			
Fin Transport	14h	17-5-98	Fin Transport			Fin Transport			
Début Travail	14h	17-5-98	Début Travail			Début Travail			
Fin Travail	14h	17-5-98	Fin Travail			Fin Travail			

### Description et matériel

[illegible]

Date d'expédition

Nom du responsable-client

Signature du client

## B. Transporteur

**Écolocycle inc.**

### C. Destinataire

Immatriculation		Unité N°		Nom: _____	
Y 11 31		154.5		Adresse: _____	
				Ville: _____ Tél.: _____	
Type de camion		N° Conteneur	Volume	Arrivée	
			11-1-62	Départ (h): Arrivée (h):	
Nom du chauffeur	Date	Nom du responsable		Date	

édition

Date: 6/14/98

Feuille 1 de 1

Expéditeur  
BAFFIN LAND IRON MINES (UNDER DE)  
FROM: PORT VALLEYFIELD

### Instructions spéciales

Description des marchandises

No/type de coils	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
DAMM	D.E.S.E. (Stx)	3	N/A	1200	II	5700
ORZM	SA.S.E. (1x)	3	N/A	1200	II	1000

Téléphone : Numéro d'urgence 24 heures de l'expéditeur

Numéro PIU (si applicable)

Tél.: Canutec



**Address:**

Same as Ship To

Phone: 1-800-363-1067

Fax: 1-450-796-4525

**Ship To:**

Name: M.Benoit Dion

Company: QC Ecocycle

Address: 7950 Ave Pion

City: St. Hyacinthe, Quebec

J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

213926

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Martin Quintal

**Attention: M. Benoit Dion**

**Date Shipped: October 8.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
69 drums	Pallets w/4 drums of Wasted Oil N/R as follows: M259p(1)-M28-M35-M17-M29-M7-M433-M5-M22-M435-M1-M27-M25-M26-M31-M432-M14-M30	308	69	69
7 drums	Pallets w/4 drums of Waste Fuel as follows: M259p(3) + M248	308	7	7
16 drums	Pallets w/4 drums of Contaminated Water as follows: M140-M141-M281 -M145	308	16	16
	Vessel Avataq - V2R			
	Annexe # 08-338/08-340/08-339/08-377			
	Cargo Receipt # T1299 + T1300			
<b>Total:</b>			<b>92</b>	<b>92</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



112

OIL 569 DRUMS  
WATER 16 DRUMS  
FUEL 7 DRUMS



**Nunavut Eastern Arctic Shipping Inc.**

Port de Valleyfield, 950 boul. Gérard-Cadiéux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T 1300**

**Reçu de Livraison / Delivery Receipt**

Consignataire Consignee	ECOCYCLE		Date	8/10/08
Destination	ST. HYACINTHE			
Expéditeur Shipper	BAFFINLAND IRON MINES	Origine Origin	MILNE INLET	
Navire / Vessel	V2R	Annexe #	08-336/08-340/08-339/ 08-3771	

ITEM #	DESCRIPTION	KG
1	M28 Waste ml NIK	
2	M35 "	
3	M17 "	
4	M29 "	
5	M7 "	
6	M433 "	
7	M5 "	
8	M22 "	
9	M435 "	
10	M1 "	
11	M27 "	
12	M25 "	
13	M26 "	
14	M31 "	
15	M432 "	
16	M14 "	
17	M30 "	
18		
19	< 68 DRUMS OIL	
20		
TOTAL		15.371 kg

Transporteur

LA





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

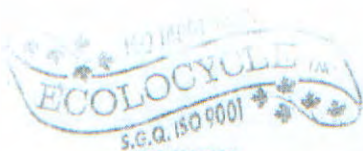
Reference

T 1299

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date 8/10/08	
Destination 7950 ST. HYACINTHE, QC		JLR 1R9	
Expéditeur Shipper		Origine Origin	
Baffinland Inuit Hires		MILNE INLET	
Navire / Vessel		Annexe #	
JLR			
ITEM #	DESCRIPTION		KG
1	M259	3 waste fuel / 1 waste oil	400
2	M140	0 4 contaminated water	6
3	M141	0 4	"
4	M291	0 4	"
5	M248	4 waste fuel	"
6	M145	0 4 contaminated water	"
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
TOTAL			
Transporteur Carrier			





7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9

FOR-01

Bon de connaissance

# BON DE CONNAISSEMENT

213926

**A. Générateur**

Nom: \_\_\_\_\_ Date (J/M/A): \_\_\_\_\_

Adresse: \_\_\_\_\_ Téléphone: \_\_\_\_\_

Ville: \_\_\_\_\_ Zone SOGHU # \_\_\_\_\_ Code postal: \_\_\_\_\_

N° Commande		N° Analyse		Page 1 (cm)		Page 2 (cm)		Dossier	
PRODUIT* MDR	NOMBRE DE CONTENANTS	APPELLATION RÉGLEMENTAIRE MENVIQ RTMD		CLASSE PRIMAIRE	CLASSE SUB	NUMÉRO UN	GROUPE EMBALLAGE	QUANTITÉ	MD
Huile minérale		A01	N.A.	0.0	0.0	N.A.	N.A.		
Filtres à l'huile - 205 L		A05	N.A.	0.0	0.0	N.A.	N.A.		
Filtres à l'huile - 240 L		A05	N.A.	0.0	0.0	N.A.	N.A.		
Filtres à l'huile - 360 L		A05	N.A.	0.0	0.0	N.A.	N.A.		
Glycol (Prestone)		D01	N.A.	0.0	0.0	N.A.	N.A.		
Solvants non-hal.		C02	LIQUIDE IMFLAMMABLE N.S.A. (Solvants)	3.0	0	1993	II		X
Contenants d'huiles usagés	(sacs) (20 litres)	L02							
		L02							
BACS/BARILS - CUEILLIS				BACS/BARILS - LIVRÉS					
Nombre	Format	# Identification		Nombre	Format	# Identification			

\* PRIX SUJETS À CHANGEMENT SUR VÉRIFICATION

Date d'expédition	Nom du responsable-client	Signature du client

NUMÉRO - 24 HEURES: 800-363-1067

**B. Récupérateur/Transporteur** Écolocycle Inc. SOGHU # 302 **C. Destinataire/Recycleur** Écolocycle Inc. SOGHU # 401 ou

Immatriculation		Unité N°		Nom: _____	
				Adresse: _____	
				Ville: _____ Tél: _____	
Type de camion		N° Conteneur	Volume	Arrivée	
				Départ (h): Arrivée (h):	
Nom du chauffeur		Date (J/M/A)		Nom du responsable	
				Date (J/M/A)	



**Address:**

Same as Ship To

**Ship To:**

Name: M.Benoit Dion

Company: QC Ecocycle

Address: 7950 Ave Pion

City: St. Hyacinthe, Quebec

J2R 1R9

Phone: 1-800-363-1067

Fax: 1-450-796-4525

**Original PO Number**
**Vendor's RA Number**
**Shipped Via**

Their Transport

**W/B Number**

6824

**Attention: M. Benoit Dion**
**Date Shipped: October 8.08**
**Special Instructions**
**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Yves Perron

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
4 drums	Pallets w/4 drums of Wasted Oil as follows:	9843	4	4
43 drums	M216p(2) - M204p(2) Pallets w/4 drums of Waste Fuel as follows:	9843	43	43
45 drums	M240-M216p(2)-M311-M198-M243p(3)-M300-M204p(2)-M41-M267-M272-M271-M254 (Total 9 full pallets + 7 drums) Pallets w/4 drums of Oily Water as follows:	9843	45	45
4 drums	M163-M167-M243p(1)-M116-M117-M241-M148-M118-M119-M136-M137-M280 (Total 11 full pallets + 1 drum) Pallet w/4 drums of Dust remover - M39	9843	4	4
	Vessel Avataq - V2R			
	Annexe # 08-341/08-348/08-351/08-352/08-355/08-356/08-357/08-360/08-361/08-363/08-366/08-367			
	Cargo Receipt # T1301 + T1302			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1301

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
Destination		Origine Origin	
Expéditeur Shipper		Annexe #	
Navire / Vessel			
ITEM #	DESCRIPTION	KG	
1	M 163 Pallet X(4) oily water	400	
2	M 240 Pallet (4) Wasted fuel	400	
3	M 167 Pallet X(4) oily water	400	
4	M 216 Pallet X(2) wasted oil (2) Wasted fuel	400	
5	M 311 Pallet (4) wasted fuel	400	
6	M 198 " "	400	
7	M 243 Pallet (3) waste fuel (1) X oily water	400	
8	M 300 Pallet (4) wasted fuel	400	
9	M 116 X Pallet (4) oily water	400	
10	M 117 " "	400	
11	M 241 X Pallet (4) oily water	400	
12	M 204 X Pallet (2) wasted oil (2) Wasted fuel	400	
13	M 148 X Pallet (4) oily water	400	
14	M 39 Pallet (4) Absorbant	400	
15	M 41 Pallet (4) wasted fuel	400	
16	M 267 Pallet (4) wasted fuel	400	
17	M 272 " "	400	
18	M 271 " "	400	
19	M 254 " "	400	
20	M 118 X Pallet (4) oily water	400	
TOTAL			
Transporteur Carrier		Lic./No. Unité Lic/Unit No.	
Nom en lettres moulées-Name in block letters		Vérificateur-Checker	
Receiver Signature Receveur		Shipper Signature Expéditeur	





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1302

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOLUCYCLE	Date	8/10/08
Destination	7150 ST. HYACINTHE RD J2R 1R4		
Expéditeur Shipper	BAFFINLAND IRON MINES	Origine Origin	MILNE INLET
Navire / Vessel	VJR	Annexe #	08-348/08-550/08-364

ITEM #	DESCRIPTION	KG
1	M 119 < Pellet (4) oily water	400
2	M 136 X " "	400
3	M 137 X " "	400
4	M 280 X " "	400
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		

Transporteur Carrier	ECOLUCYCLE	Lic./No. Unité Lic./Unit No.	9843
Nom en lettres moulées-Name in block letters	Yves Perron	Vérificateur-Checker	[Signature]
Receiver Signature Receveur	[Signature]	Shipper Signature Expéditeur	[Signature]

Terminal NEAS Terminal

Dossier

Endroit

ÉTAT  
(L.P.G.S.)

PLACARDS

Arrivée

Date

N DE TRAVAIL

6824



Code postal:

*[Faint, illegible text from bleed-through]*

Date d'installation	Nom du responsable client	Signature du client
8/10/8		

Immatri. n°	U.S. n°	Nom :	<u>Ledouché</u>
L372824	9413	Adresse :	<u>250 Rue JARIS</u>
RJ92341	0068	Ville :	<u>St Hyacinthe</u> Tél : <u>1-800-363 1067</u>

Type de camion	N° de camion	Volume	Arrivée
Rem. Dry Box	0003		Départ (h) Arrivée (h)
Nom du chauffeur	Date	Nom du responsable	Date
Yves Ferron	8/10/8		8/10/8
Signature du chauffeur		Signature du responsable	

06824

OCT-17-2008 11:26 De : TRANSPORT NANUK



TO ECOCYCLE

Date \_\_\_\_\_

2002/01/08

Feuille

20	
----	--

### Instructions spéciales

FINLAND (under QE)

## on des marchandises

[illegible]

ne : Numéro d'urgence 24 heures de l'expéditeur

ABLI'S

5141 540 1730

Numéro PIU (si applicable)

Tél.: Canutec



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via** Their Transport

**W/B Number** 6822

**Attention: M. Benoit Dion**

**Date Shipped: October 8.08**

**Special Instructions**

**BIM Shipper Signature** David Alexander

**Driver's Signature** Michel Nadeau

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
8 drums	Pallets w/4 drums of Waste Fuel as follows: M235-M229	9511	8	8
84 drums	Pallets w/4 drums of Contaminated Water as follows: M313-M316-M279-M278-M132-M133-M190-M286-M131-M292-M162-M161-M144-M142-M146-M147-M143-M153-M323-M155-M293 (Total 21 full pallets )	9511	84	84
4 drums	Pallet w/4 drums of Gasoline - M43	9511	4	4
	Vessel Avataq - V2R			
	Annexe # 08-367/08-364/08-350/08-355/08-341/08-359/08-349/08-352/08-365/08-351/08-365/08-368			
	Cargo Receipt # T1303 + T1304			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



114

WATER = 8 DRUMS ✓  
 GAS = 4 DRUMS ✓  
 FUEL = 8 DRUMS ✓



**Nunavut Eastern Arctic Shipping Inc.**

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
 Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T 1303**

**Reçu de Livraison / Delivery Receipt**

Consignataire Consignee		Date	
E. COLODYCE		8/10/06	
Destination			
795 ST. HYACINTHE, QC V2R 1R9			
Expéditeur Shipper		Origine Origin	
BAFFINLAND IRON MINES		MILNE INLET	
Navire / Vessel		Annexe #	
V2R		08-355/08-341/08-359	

ITEM #	DESCRIPTION	KG
1	M313 ✓ 4 x contaminated water	400
2	M316 ✓ "	"
3	M279 ✓ "	"
4	M278 ✓ "	"
5	M132 ✓ "	"
6	M133 ✓ "	"
7	M190 ✓ "	"
8	M286 ✓ "	"
9	M43 ✓ 4 x Gasoline	"
10	M235 X 4 x Waste fuel	"
11	M131 ✓ 4 x contaminated water	"
12	M292 ✓ "	"
13	M162 ✓ "	"
14	M161 ✓ "	"
15	M141 ✓ "	"
16	M239 X 4 x Waste fuel	"
17	M142 ✓ 4 x contaminated water	"
18	M146 ✓ "	"
19	M147 ✓ "	"
20	M143 ✓ "	"
TOTAL		





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

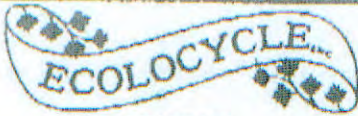
**T 1304**

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOCYCLE	Date	8/10/08
Destination	7950 S. HYACINTHE, QC J2R 1R9		
Expéditeur Shipper	BYFFINLAND IRON MINES	Origine Origin	MILNE INLET
Navire / Vessel	VJR	Annexe #	08-351/08-365/08-366

ITEM #	DESCRIPTION	KG
1	M153 ✓ 4 x Fortanitated water	400
2	M323 ✓	5
3	M155 ✓	5
4	M293 ✓	5
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		





# BON DE TRAVAIL

FQH-17

Bon de travail

06822

1-800-363-1087  
7050 AVENUE PION, ST-HYACINTHE, QC J2R 1R9  
714-8-586405-4

A. Générateur

Nom:

STABILES

Téléphone:

Adresse-Ville:

Rte 10 VALLEY FIELD

Code postal:

N° Commande		N° Analyse		Pipe 1 (cm)		Pipe 2 (cm)		Dossier	
PA 954									
M1V 2438									
	Heure	Endroit		Heure	Endroit		Heure	Endroit	
Déb. Transport	11:45	St-Hyacinthe	Déb. Transport	14:45	VALLEY FIELD	Déb. Transport			
Fin Transport	13:30	VALLEY FIELD	Fin Transport		St-Hyacinthe	Fin Transport			
Début Travail	13:30	VALLEY FIELD	Début Travail			Début Travail			
Fin Travail	14:45	VALLEY FIELD	Fin Travail			Fin Travail			

## Description et matières

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (A.T.M.B.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition:

8-10-2008

Nom du responsable client:

Signature du client

B. Transporteur

Ecolocycle inc.

C. Destinataire

Immatriculation		Unité N°		Nom: _____	
7372805		95-11		Adresse: _____	
FV83809		<del>85-60</del>		Ville: _____ Tél: _____	
Type de camion		25346		N° Conteneur	Volume
					Arrivée
					Départ (h) Arrivée (h)
Nom du chauffeur		Date		Nom du responsable	
7.10.01 NRP/090		8-10-2008		Date: _____	



## To Ecovocycle

Date:

8/10/2007

Feuille 1 de 12

Expéditeur  
SAFFIN LAND IRON MINES (UNDER DE)

### Instructions spéciales

From: PORT VALLEY FIELD

Description des marchandises

No./type de colis	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
Drums	DIESEL(BX)	3	N/A	1700	II	800
Drums	CASOLINE (4x)	3	N/A	1203	IV	400

Téléphone : Numéro d'urgence 24 heures de l'expéditeur

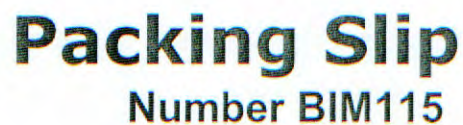
Numéro PIU (si applicable)

STABILIS

(5/4) 946 1230

Tél.: Canutec





J2R 1R9

### Special Instructions

Yves Perron

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

**Pls contact David Alexander 514-880-6632, email [david.alexander@baffinland.com](mailto:david.alexander@baffinland.com) with any questions.**





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1305

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOCYCLE	Date	9/10/08
Destination	798 ST. HYACINTHE, QC	J2R IR9.	
Expéditeur Shipper	PUFFINLAND IRON MINES	Origine Origin	MILNE INLET
Navire / Vessel	V2R	Annexe #	08-341/341/353/364/353/370/364/367/365/362

ITEM #	DESCRIPTION	KG
1	M121 4 x CONTAMINATED WATER	400
2	M120 "	"
3	M320 "	"
4	M157 "	"
5	M224 "	"
6	M129 "	"
7	M164 "	"
8	M346 "	"
9	M341 "	"
10	M166 "	"
11	M277 "	"
12	M225 "	"
13	M317 "	"
14	M156 "	"
15	M332 "	"
16	M334 " Total 104 drums	"
17	M289 "	"
18	M227 "	"
19	M276 "	"
20	M165/166 "	"
TOTAL		

Transporteur Carrier	ECOCYCLE	Lic./No. Unité Lic./Unit No.	9843
Nom en lettres moulées-Name in block letters	YVES PERON	Vérificateur-Checker	
Receiver Signature Receveur		Shipper Signature Expéditeur	





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T1306

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
ECCOLOCYCLE		9/10/07	
Destination		J2R 1R9	
7450 ST. HYACINTHE, QC			
Expéditeur Shipper		Origine Origin	
DAFFINLAND IRON MINES		HUNNE INLET	
Navire / Vessel		Annexe #	
V2R		08-364/07-364/07-364 08-353	
ITEM #	DESCRIPTION		KG
1	M337	4 x Contaminated Water	400
2	M343	"	"
3	M1104	"	"
4	M321	"	"
5	M315	"	"
6	M319	"	"
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
TOTAL			
Transporteur Carrier		Lic./No. Unité Lic./Unit No.	
ECCOLOCYCLE		9843	
Nom en lettres moulées-Name in block letters		Vérificateur-Checker	
YVES PERRON		[Signature]	
Receiver Signature Receveur		Shipper Signature/Expéditeur	
[Signature]		[Signature]	



3m:

Adresse-Ville:

Téléphone:

Code postal:

N° Commande	N° Analyse	Page 1 (cm)		Page 2 (cm)		Dossier	
Heure	Endroit	Heure	Endroit	Heure	Endroit	Heure	Endroit
Déb. Transport		Déb. Transport		Déb. Transport		Déb. Transport	
Fin Transport		Fin Transport		Fin Transport		Fin Transport	
Début Travail		Début Travail		Début Travail		Début Travail	
Fin Travail		Fin Travail		Fin Travail		Fin Travail	
Description et matériel							

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition

Nom du responsable-client

Signature du client

B. Transporteur

Écolocycle inc.

C. Destinataire

Immatriculation		Unité N°	Nom:	
			Adresse:	
			Ville:	
			Tél.:	
Type de camion		N° Conteneur	Volume	Arrivée
				Départ (h):
				Arrivée (h):
Nom du chauffeur		Date	Nom du responsable	
Signature du chauffeur		Signature du responsable		



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

11753

**Attention: M. Benoit Dion**

**Date Shipped: October 9.08**

**Special Instructions**

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Justin Gregoire

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
88 drums	Pallets w/4 drums of Contaminated Water as follows: M151-M292-M326-M331-M335-M324-M342-M339-M325-M318-M344-M347-M314-M322-M333-M168-M345-M330-M110-M111-M130-125 (Total 22 full pallets )	9511	88	88
8 drums	Pallets w/4 drums of Dust Remover-M91-M85	9511	8	8
	Vessel Avataq - V2R			
	Annexe # 08-351/08-364/08-368/08-369/08-367/08-370/08-353/08-348/08-346/08-349/08-345			
	Cargo Receipt # T1307 + T1308			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE:** The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.









# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1308

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOLOGIQUE	Date	9/10/08
Destination	7950 ST. HYACINTHE, QC J2R 1K9		
Expéditeur Shipper	PAFFINLAND IRON MINES	Origine Origin	MILNE INLET
Navire / Vessel	UOR	Annexe #	08-346-108-349/08-345

ITEM #	DESCRIPTION	KG
1	M141 4 x Saw knives	400
2	M185 "	"
3	M130 4 x Portacranes water	"
4	M125 "	"
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		

Transporteur Carrier	ECOLOGIQUE	Lic./No. Unité Lic./Unit No.	9511
Nom en lettres moulées-Name in block letters	GASTON GLEBORE	Vérificateur-Checker	[Signature]
Receiver Signature Receveur	[Signature]	Shipper Signature Expéditeur	[Signature]



Nom:

Téléphone:

Adresse-Ville:

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)	Pige 2 (cm)	Dossier

Heure	Endroit	Heure	Endroit	Heure	Endroit
Déb. Transport		Déb. Transport		Déb. Transport	
Fin Transport		Fin Transport		Fin Transport	
Début Travail		Début Travail		Début Travail	
Fin Travail		Fin Travail		Fin Travail	

Description et matériel

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS

Date d'expédition

Nom du responsable-client

Signature du client

B. Transporteur

Écolocycle inc.

C. Destinataire

Immatriculation	Unité N°	Nom:		
		Adresse:		
		Ville:	Tél.:	
Type de camion	N° Conteneur	Volume	Arrivée	
			Départ (h): Arrivée (h):	
Nom du chauffeur	Date	Nom du responsable	Date	
Signature du chauffeur		Signature du responsable		



**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

11874

**Attention: M. Benoit Dion**

**Date Shipped: October 9.08**

**Special Instructions**

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Mario Pigeon

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
76 drums	Pallets w/4 drums of Contaminated Water as follows: M290-M212-M269-M150-M275-M151-M126-M127-M135-M115-M273-M274-M336-M328-M149-M282-M283-M312-M340 (Total 19 full pallets )	9809	76	76
20 drums	Pallets w/4 drums of Waste Fuel as follows: M202-M302-M196-M195-M197 (Total 5 full pallets)	9809	20	20
	Vessel Avataq - V2R			
	Annexe # 08-365/-08-357/08-363/08-351/08-349/08-350/08-364/08-367/08-355			
	Cargo Receipt # T1309 + T1310			
<b>Total:</b>			<b>96</b>	<b>96</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adeliade Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1309

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
Destination		Origin	
Expéditeur Shipper		Annexe #	
Navire / Vessel			
ITEM #	DESCRIPTION	KG	
1	M290 ✓ 4 Contaminated water	400	
2	M212 ✓	"	
3	M269 ✓	"	
4	M150 ✓	"	
5	M275 ✓	"	
6	M101 ✓	"	
7	M126 ✓	"	
8	M127 ✓ " 32	"	
9	M202 ✗ 4 Waste fuel	"	
10	M135 ✓ 4 Contaminated water	"	
11	M302 ✗ 4 Waste fuel	"	
12	M115 ✓ 4 Contaminated water	"	
13	M273 ✓	"	
14	M274 ✓	"	
15	M196 ✗ 4 Waste fuel	"	
16	M195 ✗	"	
17	M336 ✓ 4 Contaminated water	"	
18	M328 ✓	"	
19	M149 ✓	"	
20	M282 ✓	"	
TOTAL			
Transporteur Carrier		Lic./No. Unité Lic./Unit No.	
Nom en lettres majuscules-Name in block letters		Vérificateur-Checker	
Receiver Signature Receveur		Shipper Signature Expéditeur	





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadioux, Valleyfield (Québec) J6T 6L4

Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1310

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Date	
ECOCYCLE		9/10/08	
Destination			
7950 ST. HYACINTHE, RD 12R 1R9			
Expéditeur Shipper		Origine Origin	
BAFFINLAND IRON MINES		MILNE INLET	
Navire / Vessel		Annexe #	
12R		08 364/08-367/08-355	
ITEM #	DESCRIPTION		KG
1	M283	✓ 4 contaminated water	400
2	M312	✓ "	"
3	M197	✗ 4 waste fuel	"
4	M340	✓ 4 contaminated water	"
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
TOTAL			
Transporteur Carrier		Lic./No. Unité Lic./Unit No.	
ECOCYCLE		9809	
Nom en lettres moulées - Name in block letters		Vérificateur - Checker	
MARIEE VIGOR		[Signature]	
Receveur - Signature Receveur		Shipper Signature Expéditeur	
[Signature]		[Signature]	



edition  
To Educycle

Date: 9/10/2008

Feuille 12

Instructions spéciales

N. LAND IRON MINES (UNDER DE)  
PORT VALLEY FIELD

in des marchandises

Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
DIESEL (20x)	3	N/A	1202	II	2000

ne : Numéro d'urgence 24 heures de l'expéditeur

A Bilis

514) 540 1730

Numéro PIU (si applicable)

Tel.: Canutec







**Address:** Same as Ship To

Phone: 1-800-363-1067  
Fax: 1-450-796-4525

**Ship To:** Name: M.Benoit Dion  
Company: QC Ecocycle  
Address: 7950 Ave Pion  
City: St. Hyacinthe, Quebec  
J2R 1R9

**Original PO Number**

**Vendor's RA Number**

**Shipped Via**

Their Transport

**W/B Number**

11878

**BIM Shipper Signature**

David Alexander

**Driver's Signature**

Michel Marcil

**Attention: M. Benoit Dion**

**Date Shipped: October 9.08**

**Special Instructions**

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
8 drums	Pallets w/4 drums of Waste Fuel as follows: M230-M246	529	8	8
3 drums	Pallet w/3 drums Hypochlorite in a solution M436p(3)	529	3	3
16 drums	Pallets w/4 drums of Oily water M329-M327-M245-M114	529	16	16
N/A	2 Pallets with waste ore and empty pails (Quatrex) as follows: M301-M303	529	2	2
N/A	17 empty Totes (1000L)	529	17	17
N/A	1 Pallet with waste ore N/R (Quatrex) - M354	529	1	1
	Vessel Avataq V2R			
	Annexe # 08-368/08-359/08-368/08-360/08-348/08-366			
	Cargo Receipt # T1311			
<b>Total:</b>			<b>47</b>	<b>47</b>

**NOTE: The packing slip number must appear on all packing lists and invoices. All invoices where applicable are to be submitted to: Baffinland Iron Mines Corporation, Suite 1016 - 120 Adelaide Street West, Toronto, Ontario, M5H 1T1 Tel: (416) 364-8820**

Pls contact David Alexander 514-880-6632, email david.alexander@baffinland.com with any questions.



118

Hypoc in Sol'n = 3 drums ✓  
 WATER =  
 FUEL = 8 drums ✓  
 MT SGRB PAUL = 2 QUATREX BAG ✓  
 OILY = 16 drums ✓  
 WATER

MT Totes = 17 Totes ✓



Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
 Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T1311

Reçu de Livraison / Delivery Receipt

Consignataire Consignee	ECOCYCLE		Date	9/10/08
Destination	7950 ST. HYACINTHE, QC J2R 1R9			
Expéditeur Shipper	BAFFINLAND IRON MINES	Origine Origin	MILNE INLET	
Navire / Vessel	VOR	Annexe #	08-368/08-337/08-338 08-368/08-345/08-366	

ITEM #	DESCRIPTION	KG
1	M436 3 hypochlorite sol solution ✓	300
2	M339 2 oily water ✓	400
3	M23 4 waste fuel ✓	"
4	M327 4 oily water ✓	"
5	M245	"
6	M246 4 waste fuel ✓	"
7	M114 4 oily water ✓	"
8	M301 Waste Ho/propyl fuels (Quatex)	"
9	M303	"
10	M354 2 Waste fuel N/R (Quatex)	400
11		
12	N/A 17 tote (1000L) vide	1700
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		5600
Transporteur	Eco-cycle	
	Lic./No. Unité	





1-800-363-1067  
7950, AVENUE PION, ST-HYACINTHE, QC J2R 1R9  
NIR: R-561954-0

## BON DE TRAVAIL

FOR-17

Bon de travail

11878

### A. Générateur

Nom:

Port de Valleyfield

Téléphone: 514-363-1067

Adresse-Ville:

Boul. Cardin

Code postal:

N° Commande	N° Analyse	Pige 1 (cm)	Pige 2 (cm)	Dossier	
		6		1702-38	
Heure	Endroit	Heure	Endroit	Heure	Endroit
Déb. Transport	6:00 Valleyfield	Déb. Transport	11:30 Valleyfield	Déb. Transport	
Fin Transport	7:45 Valleyfield	Fin Transport		Fin Transport	
Début Travail	7:45	Début Travail		Début Travail	
Fin Travail	11:20	Fin Travail		Fin Travail	

### Description et matériel

palettes - 100 unités - 100 unités

Matières dangereuses	Code des matières dangereuses	Volume (litres)	Appellation réglementaire (R.T.M.D.)	Classification	G.E.	ÉTAT (L.P.G.S.)	PLACARDS
							X4

Date d'expédition

Nom du responsable-client

Signature du client

Claudia Jore

### B. Transporteur

Ecolocycle inc.

### C. Destinataire

Immatriculation	Unité N°	Nom:	
44-43801	44-60	Ecolocycle	
242825	05-27	Adresse: 7950 Pion	
		Ville: St-Hyacinthe	
		Tél: 514-363-1067	
Type de camion	N° Conteneur	Volume	Arrivée
Remorque à tracteur			Départ (h):
			Arrivée (h):
Nom du chauffeur	Date	Nom du responsable	Date
	19/10/08		19/10/08



d'expédition : <b>To ÉCOLOGIC</b>		Date : <b>9/10/2008</b>		Feuille <b>1</b> de <b>1</b>		
Expéditeur : <b>FINLAND IRON MINES (UNDER Q&amp;E)</b> <b>1. PORT VALLEYFIELD</b>		Instructions spéciales				
Description des marchandises						
Nom de la marchandise	Appellation réglementaire et appellation technique (si requis)	Classe	Classe sub.	Numéro UN	Groupe emb.	Masse brute (kg)
<b>MS</b>	<b>01 ESEL (8x)</b>	<b>3</b>	<b>N/R</b>	<b>1202</b>	<b>II</b>	<b>800</b>
Téléphone : Numéro d'urgence 24 heures de l'expéditeur			Numéro PIU (si applicable)			
			Tél. : Canutec			



1050, St-Charles Sud  
Granby, Qué. J2G 8C6  
Tél.: (450) 375-0361  
Fax: (450) 375-6854

# DOUCET

## ACIER ET MÉTAUX

### FACTURE D'ACHATS

Achetons fer & métaux, carcasses d'auto

Date: 23-10-08 N.A.S.: \_\_\_\_\_

Nom: BENOIT DION (QIKIOTAGIUKENU) Date naissance: \_\_\_\_\_

Adresse: 7954 Valide par: \_\_\_\_\_ permis de conduire ☐ autres ☐

MONTREAL

48'

23/Oct/2008  
ID: 513

01:53:02 PM

BON DE TRAVAIL #14030

Gross: 51020 lb

Tare: 26360 lb

Net: 24660 lb

BARILS

Pallettes de bois - (2500) lbs  
Résidus Diesel - (1000) lbs  
NET 21,160 lbs

Signature: \_\_\_\_\_

9598 Kgs. 17839

1050, St-Charles Sud  
Granby, Qué. J2G 8C6  
Tél.: (450) 375-0361  
Fax: (450) 375-6854

# DOUCET

## ACIER ET MÉTAUX

### FACTURE D'ACHATS

Achetons fer & métaux, carcasses d'auto

Date: 20/10/08 N.A.S.: \_\_\_\_\_

Nom: Benoit Dion Date naissance: \_\_\_\_\_

Adresse: 7954 (QIKIOTAGIUKENU) Valide par: \_\_\_\_\_ permis de conduire ☐ autres ☐

Montreal

48'

23/Oct/2008  
ID: 709

01:51:54 PM

Bon de Travail #14029

Gross: 77220 lb

Tare: 26360 lb

Net: 50860 lb

Barils

Pallettes de bois - (4460) lbs  
Diesel (Résidus) - (2000) lbs  
NET - 44,400 lbs

Signature: \_\_\_\_\_

20,140 Kgs. 17848



PI 145



# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1518

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	Horizon Environnement Inc.		Date	8-12-08
Destination	120, Route 155, Grandes-Piles, Québec			
Expéditeur Shipper	Bethinland Iron Mines	Origine Origin	Thébaude	
Navire / Vessel	Quatag	Annexe #		

Philippe  
Simon

514-940-1230

12-11-08  
4m

ITEM #	DESCRIPTION	KG
1 11645	Pallet Quatre x V3R 08-573	1278
2 11576	" " V3R 08-567	532
3 11580	" " V3R 08-569	12
4 11588	" " V3R 08-570	788
5 11587	" " V3R 08-570	1316
6 11570	" " V3R 08-569	436
7 11624	Pallet Quatre x V3R 08-568	1648
8 11629	" " V3R 08-572	1650
9 11637	" " V3R 08-572	596
10 11636	" " V3R 08-572	1054
11 11650	" " V3R 08-574	364
12 11640	" " V3R 08-573	810
13 11642	Pallet Quatre x V3R 08-573	1140
14 11622	" " V3R 08-568	1252
15 11630	" " V3R 08-568	1074
16 11602	" " V3R 08-571	1536
17 11626	" " V3R 08-568	1036
18 11615	" " V3R 08-568	1462
19 11574	Pallet Quatre x V3R 08-569	934
20 11583	" " V3R 08-570	780
TOTAL		

Transporteur Carrier	EYG Inc. (CORRECTION)	Lic./No. Unité Lic./Unit No.	14
Nom en lettres moulées-Name in block letters	STÉPHANE GINGRAS	Vérificateur-Checker	R Martin
Signature Receveur	Signature Expéditeur		







Nunavut Eastern Arctic Shipping Inc.  
Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference  
**T 1519**

Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Horizon Environnement		Date	8-17-08
Destination 130 Route 155, Grandes-Piles Québec					
Expéditeur Shipper		Baffinland Iron Mines		Origine Origin	Milne Fullet
Navire / Vessel		Avalag		Annexe #	
ITEM #	DESCRIPTION				KG
1	11577	Pallet Quatre	V3R	08-567	410
2	11572	"	V3R	08-569	530
3	11578	"	V3R	08-569	262
4	11585	"	V3R	08-570	900
5	11589	"	V3R	08-570	837
6	11604	"	V3R	08-571	392
7	11616	"	V3R	08-568	1544
8	11623	"	V3R	08-568	1224
9	11598	"	V3R	08-571	1304
10	11601	"	V3R	08-571	638
11	11603	"	V3R	08-571	1444
12	11605	"	V3R	08-571	1300
13	11644	"	V3R	08-53	1078
14					
15					
16					
17					
18					
19					
20					
TOTAL					
Transporteur Carrier		CORDEAU TRANSPORT		Lic./No. Unité Lic./Unit No.	14
Nom en lettres moulées-Name in block letters		Vérificateur-Checker			
STEPHAN GINGRNS		R. Martin			
X Stéphane Gingrns		Shipper Signature Expéditeur			
Receiver Signature Receveur					



		<b>Horizon Environnement inc.</b> 120, Route 155, Grandes-Piles, Québec G0X 1H0 Téléphone: 800-548-7857      Télécopie: 819-538-0889	
<b>MANIFESTE DE TRANSPORT</b>			
<b>PROVENANCE (SITE):</b> <u>Baffinland Iron Mines (Milne Inlet)</u>			
<b>Adresse du chantier:</b> <u>Baffin Island, Nunavut, Milne Inlet</u>			
<b>Responsable du chantier:</b>			
<b>Téléphone:</b>			
<b>ÉCHANTILLON (PILE)</b> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>	<b>DÉCHETS SPÉCIAUX</b> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>	<b>SOLS CONTAMINÉS</b> B-C <input type="checkbox"/> G-D <input checked="" type="checkbox"/> D+ <input type="checkbox"/> C10C60 <u>33 palletes</u>	
<b>TRANSPORTEUR:</b> <u>(EYB) Pour transport corderon.</u>			
<b># immatriculation</b> <u>L265116</u>	<b>Adresse:</b>		
	<b>Nom du chauffeur:</b> <u>Stéphane Gingras</u>		
	<b>Signature:</b> <u>Stéphane Gingras</u>		
<b>AUTORISATION DE CHARGEMENT</b>			
<b>Consultant:</b> <u>Stabilis</u>			
<b>Responsable:</b> <u>Benoit Dion</u>		<b>Cellulaire:</b> <u>514 718 1230</u>	
<b>Signature:</b> <u>[Signature]</u>			
<b>Téléphone:</b> <u>514 940 1250</u>		<b>Télécopieur:</b> <u>514 940 3435</u>	
<b>RÉCEPTION (COMPLÉTÉ PAR HORIZON ENVIRONNEMENT)</b>			
		<b>NUMÉRO D'AUTORISATION (CONTRAT):</b> <div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>CHE-1731</b></div>	
<b>Date:</b> <u>08-10-08</u>		<b>Heure:</b> <u>13h24</u>	
<b>Billet de pesée no.:</b> <u>53688</u>		<b>Poids net:</b> <u>31920kg</u>	
<b>Signature:</b> <u>[Signature]</u>			

<u>[Signature]</u> Receiver Signature Receveur	<u>[Signature]</u> Shipper Signature Expéditeur
---	--





Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

T 1523

Reçu de Livraison / Delivery Receipt

Consignataire Consignee		Horizon Environnement		Date	8-12-08
Destination 130, Route 155, Grandes-Pes, Québec.					
Expéditeur Shipper		Baffinland Iron Mines		Origine Origin	Thule Inuit
Navire / Vessel		Dora Jay		Annexe #	
ITEM #	DESCRIPTION				KG
1	11597	Pallet Inuits		V3R 08-571	1066
2	11646	" "		V3R 08-573	1084
3	11648	" "		V3R 08-573	1114
4	11649	" "		V3R 08-573	1114
5	11586	" "		V3R 08-570	1114
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
TOTAL					
Transporteur Carrier		CARDERU TRANSPORT		Lic./No. Unité Lic./Unit No.	26
Nom en lettres moulées-Name in block letters		VÉRIFICATEUR-CHECKER			
GUY VANIER		P. Mouton			
Receiver Signature Receveur		Shipper Signature Expéditeur			

Terminal NEAS Terminal



FAX



DIANE

BAFFINLAND

PHILIPPE SUTTON

813-0980

DATE: 11/12/2008

Post-it  
Notes

Horizon Environnement Inc.  
120, Route 155, Grandes-Piles, Québec  
G0X 1H0  
Téléphone: 800-545-7857

Télécopie: 819-538-0839

## MANIFESTE DE TRANSPORT

ÉCHANTILLON (PILE) <div></div>	PROVENANCE (SITE): Baffinland Iron Mines (Milne Inlet)	
	Adresse du chantier: Baffin Island, Nunavut, Milne Inlet	
Responsable du chantier:		
Téléphone:		
DÉCHETS SPÉCIAUX <div></div>	SOLS CONTAMINÉS B-C <div></div> C-D <input checked="" type="checkbox"/> D+ <div></div> C10C50	
	TRANSPORTEUR: EYG / Cordoba #26	
# Immatriculation 435092	Adresse:	
	Nom du chauffeur: [Signature]	
Signature: [Signature]		
AUTORISATION DE CHARGEMENT		
Consultant: Stabilis		
Responsable: Regoit Dim		Cellulaire: 514 718 1230
Signature: [Signature]		
Téléphone: (514) 940 1230		Télécopieur: 514 940 3435
RÉCEPTION (COMPLÉTÉ PAR HORIZON ENVIRONNEMENT)		
	NUMÉRO D'AUTORISATION (CONTRAT):	
	CHE-1731	
Date: 08-12-08	Heure: 14h 49	
Billet de pesée no.: 53695	Poids net: 28530 kg	
Signature: [Signature]		



# Packing Slip

## Number BIM145

**Address:** Qikiqtaaluk Corp  
333, Queen Mary, Suite 580  
Montreal, Quebec H3V 1A2  
Phone: 514-940-1230  
Fax: 514-940-3334

**Ship To:** Name: M. Philippe Simone C/O  
Company: Horizon Environment Inc  
Address: 120 Route 155,  
Grandes-Piles- Quebec, G0X 1H0  
1-800-545-7657 or 1- 819-538-3921  
FAX: 1- 819-538-0889

**Original PO Number**

**Vendor's RA Number**

**Shipped Via: Cordeau Transport (EYG)**

**Attention: M. Benoit Dion**

**Date Shipped: December 8.08**

**W/B Number** CHE-1731

**Special Instructions**

**BIM Shipper Signature** David Alexander

**Driver's Signature** Stephane Gingras-Gilles Vanier

Item Number	Description	Unit Type	Order Quantity	Ship Quantity
11645	Pallet Quatrex WT: 1278KG	14	1	1
11576	Pallet Quatrex WT: 532KG	14	1	1
11580	Pallet Quatrex WT: 190KG	14	1	1
11588	Pallet Quatrex WT: 788KG	14	1	1
11587	Pallet Quatrex WT: 1316KG	14	1	1
11570	Pallet Quatrex WT: 436KG	14	1	1
11624	Pallet Quatrex WT: 1648KG	14	1	1
11629	Pallet Quatrex WT: 1650KG	14	1	1
11637	Pallet Quatrex WT: 596KG	14	1	1
11636	Pallet Quatrex WT: 1054KG	14	1	1
11650	Pallet Quatrex WT: 364KG	14	1	1
11640	Pallet Quatrex WT: 810KG	14	1	1
11642	Pallet Quatrex WT: 1180KG	14	1	1
11622	Pallet Quatrex WT: 252 KG	14	1	1
11620	Pallet Quatrex WT: 1024KG	14	1	1
11602	Pallet Quatrex WT: 1536KG	14	1	1
11626	Pallet Quatrex WT: 1036KG	14	1	1
11615	Pallet Quatrex WT: 1462KG	14	1	1
11574	Pallet Quatrex WT: 934KG	14	1	1
11583	Pallet Quatrex WT: 780KG	14	1	1
11577	Pallet Quatrex WT: 410KG	14	1	1
11572	Pallet Quatrex WT: 520KG	14	1	1



11578	Pallet Quatrex WT:262KG	14	1	1
11585	Pallet Quatrex WT:900KG	14	1	1
11589	Pallet Quatrex WT:832KG	14	1	1
11604	Pallet Quatrex WT:392KG	14	1	1
11616	Pallet Quatrex WT:1544KG	14	1	1
11623	Pallet Quatrex WT:1224KG	14	1	1
11598	Pallet Quatrex WT:1304KG	14	1	1
11601	Pallet Quatrex WT:628KG	14	1	1
11603	Pallet Quatrex WT:1444KG	14	1	1
11605	Pallet Quatrex WT:1300KG	14	1	1
11644	Pallet Quatrex WT:1078KG	14	1	1
11675	Pallet Quatrex WT:1194KG	26	1	1
11641	Pallet Quatrex WT: 1494KG	26	1	1
11638	Pallet Quatrex WT:1112KG	26	1	1
11630	Pallet Quatrex WT:1000KG	26	1	1
11628	Pallet Quatrex WT:1130KG	26	1	1
11635	Pallet Quatrex WT:1346KG	26	1	1
11647	Pallet Quatrex WT:1244KG	26	1	1
11643	Pallet Quatrex WT:1028KG	26	1	1
11639	Pallet Quatrex WT:1350KG	26	1	1
11627	Pallet Quatrex WT:1172KG	26	1	1
11584	Pallet Quatrex WT:1230KG	26	1	1
11631	Pallet Quatrex WT:720KG	26	1	1
11599	Pallet Quatrex WT:1308KG	26	1	1
11582	Pallet Quatrex WT:720KG	26	1	1
11573	Pallet Quatrex WT:1324KG	26	1	1
11581	Pallet Quatrex WT:1282KG	26	1	1
11579	Pallet Quatrex WT:1336KG	26	1	1
11571	Pallet Quatrex WT:126KG	26	1	1
11594	Pallet Quatrex WT:854KG	26	1	1
11607	Pallet Quatrex WT:1230KG	26	1	1
11597	Pallet Quatrex WT:1066KG	26	1	1
11646	Pallet Quatrex WT:1084KG	26	1	1
11648	Pallet Quatrex WT:1114KG	26	1	1
11649	Pallet Quatrex WT:1114KG	26	1	1
11586	Pallet Quatrex WT:1114KG	26	1	1

	Vessel: Avataq V3R			
	Annexe #: 08-573-569-570-568-572-574-568-571			
	Cargo Receipt # T1518+T1519 (33 Pallets) - T1520 + T1523 (26 Pallets)			
		Total:	58	58





# Nunavut Eastern Arctic Shipping Inc.

Port de Valleyfield, 950 boul. Gérard-Cadieux, Valleyfield (Québec) J6T 6L4  
Tél.: 1-888-908-0000 / (450) 373-3379 Fax: (450) 373-0812

Reference

**T 1460**

## Reçu de Livraison / Delivery Receipt

Consignataire Consignee	Ecologycle	Date	1/13/08
Destination	7950 av. Pion St-Hyacinthe		
Expéditeur Shipper	Biffinland Tron Mines	Origine Origin	Milne Inlet
Navire / Vessel	Avataq (K3R)	Annexe #	08568, 571571/52

ITEM #	DESCRIPTION	KG
1	M336 Quatrex	276
2	M337 Tole 1000L (mastic oil)	924
3	M355 Quatrex	162
4	11618 BAFERIAL AND	336
5	11619 " "	340
6	11621 " " UN2794	698
7	11617 " "	266
8	11615 2 y Quatrex	1006
9	11593 " "	366
10	11595 " "	494
11	11592 " "	146
12	11590 " "	190
13	11591 " "	494
14	11596 " "	182
15	11600 " "	268
16	11606 " "	282
17	11632 " "	326
18	11633 " "	446
19	11634 " "	944
20	11675 " "	258
TOTAL		

Transporteur Carrier	Ecologycle	Lic./No. Unité Lic./Unit No.	9810
Nom en lettres moulées-Name in block letters	MANU / RECEV	Vérificateur-Checker	Philippe Dablin
Recevoir Signature Receveur		Shipper Signature Expéditeur	







# WASTE MANAGEMENT IMPLEMENTATION PLAN

Presented to:



Cheryl Wray, Environmental Coordinator

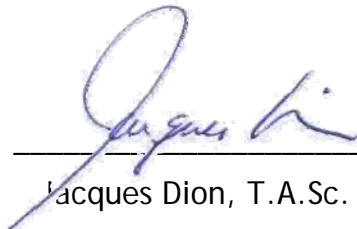
Prepared by:



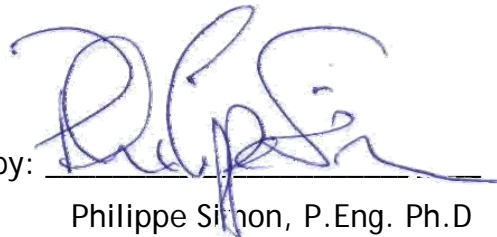
August 2008

# WASTE MANAGEMENT IMPLEMENTATION PLAN

Written by:

  
Jacques Dion, T.A.Sc.

Reviewed by:

  
Philippe Simon, P.Eng. Ph.D



ᑭᑭᑭᑭᑭᑭᑭᑭ ᑭᑭᑭᑭᑭᑭᑭᑭ  
QIKIQTAALUK ENVIRONMENTAL

August 2008



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## 1.    Introduction

Baffinland is committed to remediate areas impacted by former exploration work done during the 1960's and by its current exploration activities. In order to comply with this obligation, Baffinland hired Qikiqtaaluk Environmental to develop and execute a waste management program for solid and hazardous waste located in the area of the main camp and also at the Milne Inlet site. Baffinland also manifested their intention to perform the clean-up on 2 others sites located in Nanisivik and Pond Inlet.

A representative of QE visited the Mary River and Milne Inlet sites during the first week of March in order to get a general understanding of the location and condition of hazardous and non-hazardous waste storage areas. This visit did not include the Pond Inlet and Nanisivik. Baffinland explained that waste from Nanisivik was mainly old bags of salt mixed with sand. A marine shipping container and a few empty drums (~ 150 units) are present at Pond Inlet.

As Part 1 of the mandate, a second visit was done by a representative of QE between June 30<sup>th</sup> and July 7<sup>th</sup>. The objective of this visit was to collect different information to propose and implement a waste management plan; the field assessment was performed to;

- Evaluate the volume of all type of wastes found on Baffinland mine sites.
- Assess the condition of packaging in order to comply with part 5 of the Transport of Dangerous Good Regulations.
- Identify the different sources, composition and type of waste.
- Estimate the quantity of empty drums to crush and dispose
- Verify the way that waste are identified, labelled and codified
- Identify priority that should apply based on storage condition
- Evaluate the effort required to manage the current waste inventory
- Suggest actions on site that could be initiated immediately

Since there was only one visit of a cargo sealift in Milne Inlet for the 2008 summer in August, it was suggested to begin as soon as possible the preparation for the shipment of some hazardous waste ready for disposal. The priority of action was established based on potential hazard of spillage or leaking on the ground. Many drums of waste hydrocarbon liquids were stored in sound barrels suitable for transport. The preparation for marine shipment requires drums to be strapped and braced on pallets. Hazardous waste were also adequately identified and labelled in accordance of TDG requirements. The transfer of HW from Mary River to Milne Inlet began in Mid-July.



# W a s t e   M a n a g e m e n t   I m p l e m e n t a t i o n   P l a n

The crushing and compacting of drums was another initiative that was implemented during the first week of July. A few thousand empty drums were stored on different sites around Mary River camp site; this action allowed reducing substantially the volume and space required for storage. The landfilling of crushed drums is not permitted on the mine site; therefore they were palletized and prepared for shipment to a disposal facility down south. A hazardous waste specialist from QE came on Mary River site July 5<sup>th</sup> to initiate the packaging and preparation for transport and disposal of hazardous waste and crushed drums. The present waste management plan will describe the actions already implemented and other works that should be done later in the season.

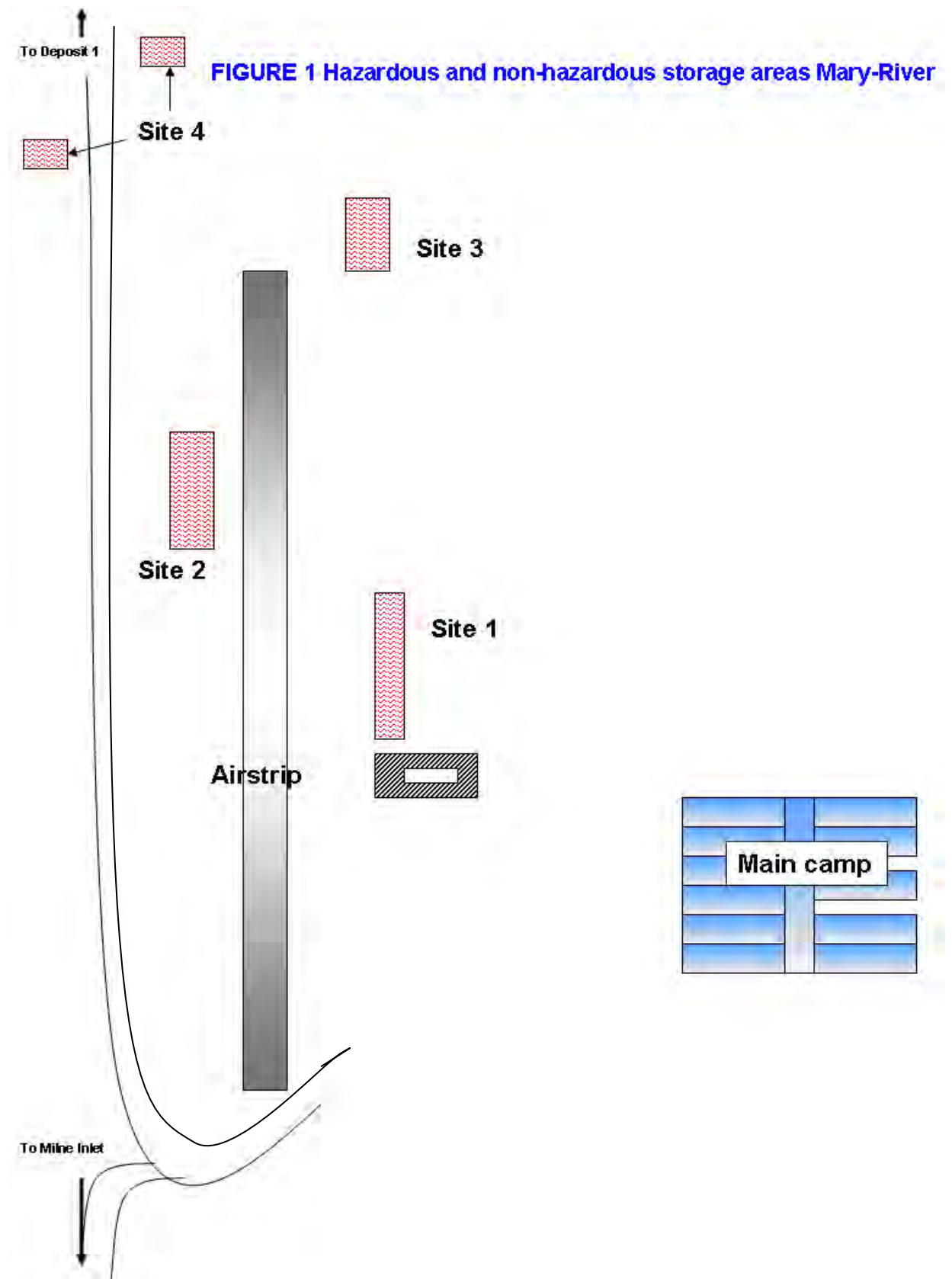
## **2.     Waste Management Implementation Plan**

As part of its mandate, QE proposes a waste management program for the environmental remediation of hazardous and non-hazardous waste. This plan includes the following information:

- Identification and location of hazardous and non hazardous waste storage areas
- Inventory of all categories of waste found in storage areas
- Verification of the regulatory requirements for all type of waste
- Classification of hazardous waste based on TDG and IMO regulations
- Estimation of packaging equipments required for hazardous waste
- Evaluation of the volume of solid waste for landfill space
- Identification and proposal for on-site volume reduction techniques
- Proposal of a waste management tracking procedure
- Description of equipment required and packaging procedures for transport by marine vessel

## **3.     Mary river site - Identification of the current hazardous and non-hazardous storage areas**

Around the Mary River Camp site, there are 4 different locations where hazardous and non-hazardous are found.









### 3.1 Mary River, Description of storage sites

### 3.1.1 Site 1 Near the Main camp


This site is located between the Main camp and the airstrip, waste are grouped in different piles. Most of the wastes located there are classified as hazardous waste. All drums of hazardous waste that were suitable for transport were strapped and braced in preparation to off-site disposal. Table 1 shows the list of HW ready to ship. The table 2 describes other HW already on pallets that need to be strapped and braced prior to shipment. HW's that still need preparation (table 3) are grouped on 108 pallets.

Table 1 HW from site 1 ready to ship

WASTE DESCRIPTION	TYPE OF PACKAGING	TDG SHIPPING NAME	UN	CLASS	QUANTITY (drums)
fuel (Diesel, jet fuel & water)	Drums	Waste fuel	UN1202		315 on 69 pallets
Contaminated water	Drums	Waste toxic liquid, NOS (water with fuel)	UN2810		23
Oil	Drums	Waste oil N/R	N/R	N/R	28
Gazoline	Drums	Waste gasoline	UN1203		12
Coolant	Drums	Waste coolant N/R	N/R	N/R	2
Lead batteries	Wooden crate	Batteries, wet filled with acid	UN2794		1
Crushed drums	Pallets	N/R	N/R	N/R	67

# Waste Management Implementation Plan

Table 2 HW on Site 1 that need to be strapped and braced (all marked and labelled)

WASTE DESCRIPTION	TYPE OF PACKAGING	TDG SHIPPING NAME	UN	CLASS	QUANTITY
fuel (Diesel, jet fuel & water)	Drums	Waste fuel	1202		56
crushed 45 gals metal drum	Pallets	N/R	N/R	N/R	93
Hydrocarbon Contaminated soil	Quatrex bags	N/R	N/R	N/R	1

Other hazardous waste still remaining on Site 1 will need repackaging in proper containers prior to be moved and transported off-site. Baffinland have already ordered 600 Salvage drums and 400 Quatrex bags that will be delivered on the 2008 summer sealift. The repackaging will be done after reception of these UN containers. The Table 3 describes other HW from site 1 that cannot ship without being transferred in proper packaging in 2008. All HW listed in table 3 (except waste fuel) are not TDG regulated.

Table 3 Remaining HW Site 1 needs repackaging

WASTE DESCRIPTION	CURRENT PACKAGING	QUANTITY	QUATREX BAGS	SALVAGE DRUMS
Oil, P50, contaminated soil	20 litres pails	257	10	
Oily contaminated water	Drums without cover	9		8
Contaminated soil	Drums without cover	39	8	
Oily absorbant pads	Drums without cover	17	5	
Oil filters	Drums without cover	7		5
 Waste fuel UN1202	Drums in bad conditions	3		3
Empty drums (kept for reuse)	If crushed (will require 32 pallets)	~ 700		

Other types of waste or scrapped materials were found in 7 drums on site 1, these solids wastes are not considered as hazardous. These drums contain scrap metal, air filters and ash from the incinerator. The content of these drums can be empty into the future landfill.



## 3.1.2 Site 2 Other side of the airstrip (commonly called Canadian Tire)






This site is actually used to store solid wastes and miscellaneous debris; the table 4 lists each type of solid wastes that are acceptable for landfill on site. Many solid waste stored on this site were produced during the exploration activities done in the beginning of 60's. There is some hazardous waste or regulated materials that will need to be repackaged and shipped off-site. Hazardous wastes from this site are described in Table 5. There were approximately 2500 empty drums that were removed from this site in July and transported to the barrel processing area for crushing.

Table 4 Solid wastes inventoried from Site 2

DESCRIPTION OF WASTE	CURRENTLY PACKAGING	QUANTITY	MANAGEMENT OPTIONS
Ash from incinerator	45 gals metal drum with top cover cut	461	Landfil
Metal scrap	45 gals metal drum with top cover cut	9	Compact and landfil
Metal scrap	Old snowmobile, vehicle parts, ect.	2000 M <sup>3</sup>	Compact and landfil
Air filter	45 gals metal drum with top cover cut	3	Landfil
Wooden scrap	45 gals metal drum with top cover cut	4	Landfil, shred, incinerate or reuse (see note 1)
Wooden scrap	Bulk and white bags	2000 M <sup>3</sup>	Landfill, shred, incinerate or reuse (see note 1)
Scrap ATV and Ranger	Bulk	10	Keep for parts or ship for reuse off-site

**Note 1** Shredded wood can be used as organic amendment for biological treatment of hydrocarbon contaminated soil.

Table 5 List of Hazardous waste and dangerous goods from Site 2

WASTE DESCRIPTION	CURRENT PACKAGING	QUANTITY	QUATREX BAGS	SALVAGE DRUMS
Calcium Chloride 77%	1 M <sup>3</sup> bags	25	40	
Waste oil	Old Quatrex bags 20 litres pails	2	2 need repackaging	
Contaminated soil	Drums without cover	27	8	
Contaminated water	Drums without cover	16		16 or close top drums
Waste oil	20 litres pails	N/A	8	
Old empty drums crushed	Drums from 60's	420		3
Empty drums	N/A	100		
Mix of water and contaminated soil	~ 800 litres tubs	7		25
Oil filters	Open top drums	4		3
Contaminated water	Drums without cover	15		15
Waste fuel  UN1202	Drums in bad conditions	5		5
Empty Propane tank  UN 1978	Some missing caps Need to be labelled	45		
Empty Acetylene tank  UN1001	Some missing caps Need to be labelled	14		
Empty Oxygen tank   UN1072	Some missing caps Need to be labelled	5		



## 3.1.3 Site 3 South of airstrip

This site contains many old bags of Calcium chloride that need to be repackaged prior to disposal. Many drums of sewage liquid contaminated with fuel are also located on this site. All these waste, except domestic solid waste, will be sent for disposal off-site after repackaging. The table 3 describes the inventory found on this site. All HW from this site are not TDG regulated.

Table 6 Inventory of waste Site 3

WASTE DESCRIPTION	CURRENT PACKAGING	QUANTITY	QUATREX BAGS REQUIRED	OVERSIZE REQUIRED
Calcium Chloride 77%	1000 liters bags (super sacs)	101	120	
Calcium Chloride 77%	568 liters Rubbermaid open tub	4		
Sanitary & fuel waste	45 gals metal drum with top cover removed	73		73
Sanitary & fuel waste	Open top metal tub ( 1000 liters est.)	1		5
Gasoline contaminated water	Gasoline tank (500 liters est.)	1		3 close top drums
Domestic solid waste	Bulk	100 M <sup>3</sup>	LANDFILL	

## 3.1.4 Site 4 Small deposit behind gravel pit and old buildings south of airstrip

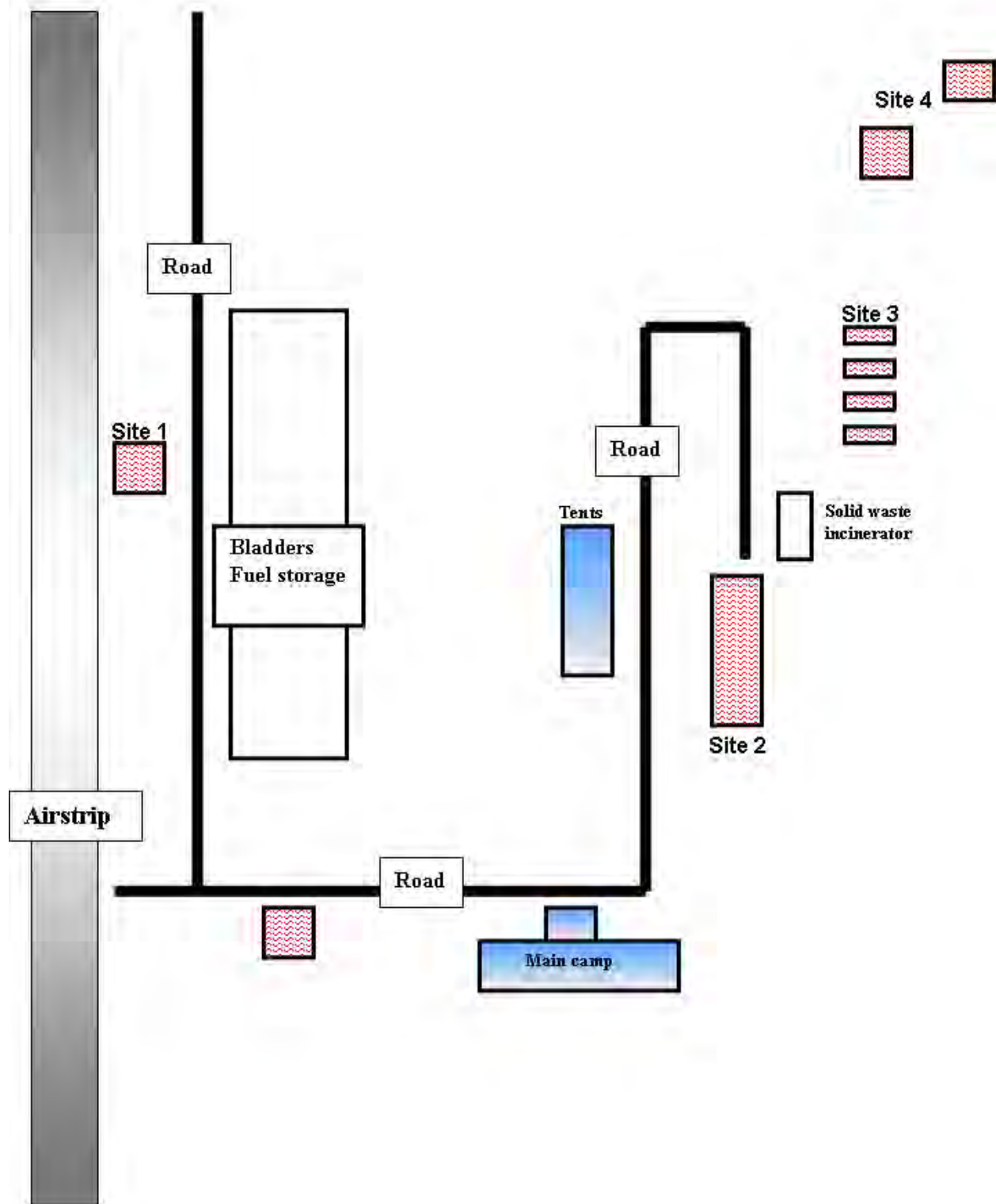
There are 131 drums stored at 3 different small locations. These drums of waste were produced during the former exploration activities in the beginning of 60's. Drums content are mainly domestic solid waste and ash. Content of these drums will be suitable for landfill on site.

**4.     Milne Inlet - Identification of the current hazardous and non-hazardous storage areas**

Around the Milne Inlet camp facilities, there are few small areas used for the storage of waste. Most of the hazardous wastes located in Milne Inlet were not ready to ship by the time this report was done. Some of them should be prepared when the QE hazmat specialist will be there around mid-August. The **figure 2** shows the layout of storage around the site.



**FIGURE 2 Hazardous and non-hazardous storage areas Milne Inlet**



## 4.1    *Site 1 East of airstrip*

This area is the only place where hazardous wastes are ready to ship. The inventory of this storage site is listed at the Table 7.

**Table 7 Hazardous waste ready for shipment Milne Inlet**

DESCRIPTION	TYPE OF PACKAGE	QUANTITY	STATUS
Waste oil	Cube tote tank (1000 lt)	35	ready for shipping on sealift
Waste oil	Cube tote tank (1000 lt)	4	ready for shipping on sealift
Waste oil	Cube tote tank (1000 lt)	1	ready for shipping on sealift,
Waste fuel	45 gals close top metal drum	39	ready for shipping on sealift,
Dust remover	45 gals close top plastic drum	4	ready for shipping on sealift,
Waste oil	Quatrex tote bag (1 cu. Yd.)	2	ready for shipping on sealift,

## 4.2    *Site 2 Main hazardous waste storage*

This area is located about 75 meters east side of the tents area. Hazardous wastes located in this area will need to be labelled, strapped and braced prior to be shipped. The table 9 list the inventory of HW located there that will eventually be shipped off-site (except ash from incinerator). There are close to 1000 empty drums that were kept on this site for fuel transfer to Mary River.



Table 9 List of hazardous waste to be packaged and labelled

DESCRIPTION	CONTAINER TYPE	QUANTITY	QUATREX REQUIRED	OVERSIZE REQUIRED	ACTIONS REQUIRED
Contaminated soil	Quatrex tote bag	22	5		to be check,label, & steel strap, 15 palettes required
Lead batteries (TDG regulated)	Quatrex tote bag	1			Label Class 8 UN2794 (F.P. 35°C cc)
Grease	Quatrex tote bag	2			need label, & steel strap
Anionic polyacrylamide copolymer	Pails in Quatrex tote bag	4			Steel strap only required
Calcium chloride	Quatrex tote bag	1			Steel strap only required
Waste oil	Quatrex tote bag	4			steel strap
Dust remover	Drum in Quatrex tote bag	1		1	Transfer drum in oversize
Calcium chloride	5 gallons pail	11			need label, & steel strap
Sodium carbonate	5 gallons pail	1			need label, & steel strap
Calcium chloride	45 gals close top drum	3		2	
Waste Fuel (TDG regulated)	45 gals close top drum	126		8	Label class 3 UN1202 (F.P. 35°C cc)
Oil filters	45 gals close top drum	10		3	
Contaminated soil	45 gals close top drum	111	28		All to be transferred in Quatrex bags
Water, oil & absorbant pad	45 gals close top drum	13		13	
Oily contaminated soil & water	45 gals close top drum	4			need label, & steel strap
Metals	45 gals close top drum	2			to be crushed
Waste Gasoline & water (TDG regulated)	45 gals close top drum	2		2	Class 3 UN1203 (F.P. -40°C cc)
Waste Gasoline (TDG regulated)	45 gals close top drum	8		1	Class 3 UN1203 (F.P. -40°C cc)
Sanitary waste	45 gals close top drum	23		23	
Ash from incinerator	45 gals close top drum	53			for landfill
Grease	45 gals close top drum	3			
Absorbant pads + water, fuel & oil	45 gals close top drum	15		15	
EK-35 (dust removal for road)	45 gals close top drum	210			Can't be use as permit requirements
Hydrocarbons contaminated water	45 gals close top drum	30		30	
Camping Propane tank (TDG regulated)	5 gals pails	1			Class 2.2 UN1978
Aerosol (TDG regulated)	45 gals close top drum	1		1	Class 2.1 UN1950

### 4.3 Sea containers

The Sea container 3050365 contains gas cylinders (6 propane, 23 acetylene, 4 oxygen) that will require being disposed off-site. Prior to the shipment, cylinders caps will need to be put on some of them. There are also 2 other sea containers sitting near the dump site containing crushed drums that will need to be disposed off-site.

#### 4.4 Dump site

There are 33 drums with open lid containing hydrocarbon contaminated soil that will require to be transferred in Quatrex bags and dispose off-site. At the north-east of the dump, there are 11 drums of sewage waste that need to be repackaged in oversize drums and ship off-site. Some other solid waste (woods, scrap metal are also present in this area. Volume of solid waste located in this area is estimated to be 500 M<sup>3</sup>.

5. Estimated quantity of packaging equipments required for the current inventory

Baffinland has ordered 600 oversize drums and 400 Quatrex bags that will be delivered on the 2008 summer sealift. For the actual need, the estimate quantity of repackaging containers will be as following;

- Oversize : 275 units
- Quatrex bags : 250 units

## 6. Waste management plan - List of priorities

During summer 2008, actions were made by Baffinland to reduce the volume of hazardous waste on site. The priority was given to hydrocarbon liquid waste due to the higher risk of incident with potential impact on soil and water quality. Many remaining waste still need to be repackaged with the new hazardous waste containers ordered by Baffinland. The following table define the actions that should be done in a close future and suggest the priority that should be considered by the management in their planning. Priorities of actions are rated from 1 to 5, when 1 represents the highest priority.



# W a s t e   M a n a g e m e n t   I m p l e m e n t a t i o n   P l a n

Actions proposed	Priority					Comments
	1	2	3	4	5	
Complete strapping, bracing and labelling						For HW not already strapped and braced
Consider the possibility of shipping oily water						Oily water will freeze causing damaged drums
Prepare hazardous waste inventory for shipment						Inventory HW to dispose for manifest requirements
Tracking of HW during loading on ship						Confirm inventory loaded with NEAS
Set up a new HW storage area (2 sites)						Find accessible areas away from sensitive habitats
Designate a waste management supervisor on site						Should be responsible of storage site and waste tracking
Buy a water treatment system for oily water						Oil-water separator, carbon and absorbant filters
Begin the repackaging of liquid HW						With the use of oversize drums
Perform soil sampling from former HW storage site						If contamination, transfer soil in Quatrex bags
Construction of the landfill						Will allow to finalize the clean-up of temporary dump site
Begin the repackaging of contaminated soil						With the use of Quatrex bags
Initiate the repackaging of calcium chloride						With the use of Quatrex bags
Built wood crates for storage of gas cylinders to be shipped						Order caps for old one, 3/4 crates with cylinders shoulders visible
Establish a procedure for waste codification and labelling						HW must be identified at the source when produced
Consolidate on one site solid waste for future landfill						Sort by type of waste (ash, debris, scrap metal and wood)
Consider the implementation of a waste oil treatment system						Integral system with waste oil incinerator
Set-up a logbook for HW current inventory						The logbook should be kept up to date and review weekly
Consider the purchasing of a wood shredder						Wood chips could be incinerated or reuse as soil amendment
Consider the construction of a landfarming platform						For the treatment on site of hydrocarbon contaminated soil
Set up a program session for people involved with HW						To inform about procedure of storage and identification of HW
Establish procedure to reduce the production of HW						Avoid water in fuel drums, empty barrels properly, ect.
Recover scrap ATV and Ranger for shipping back						Some of these equipments still have values

**APPENDIX A**  
**Photos of Hazardous and non-hazardous storage sites**  
**Mary River and Milne Inlet**



Drums of liquid HW prior to packaging Site 1 Mary River



Cube tote of waste oil Site 1 Mary River



Pails of waste oil on pallets and in bags Site 1 Mary River



Bags of Calcium Chloride Site 4 Mary River



Old gas cylinders Site 2 Mary River



Empty drums Site 2 Mary River





## Drum crushing and preparation of HW for shipment Mary River





**Hazardous waste storage site Milne Inlet**



**Old gas cylinders in sea can Milne Inlet**



**Solid waste debris for landfill Milne Inlet**

