

Table 4-1: Waste Management Package 'As-Built' Drawing List

Drawing Number	Title	Revision
H349000-4000-00-014-0003	Mine Site Infrastructure Site Layout	2
H349000-4000-00-014-0018	Mine Site Infrastructure & Utilities Site Layout	0
H349000-4000-00-014-0019	Mine Site Infrastructure & Utilities Site Layout	0
H349000-4540-75-031-0001	Mine Site Waste Management Piping & Instrumentation Diagram	1

5. Field Decisions

The following sections describe the relevant field decisions made during construction:

- The permanent location for the incinerator and waste management building were relocated adjacent to the batch plant building. As described in Section 1.2, this move made room for the new Toromont building on the maintenance pad and avoided the requirement for further permafrost excavation during the 2014 winter season east of the accommodation facility.
- The incinerator's network cabinet was exposed to dust and ash in the original design location. The cabinet has vent openings located on the sides (not a sealed cabinet). The cabinet was relocated to the incinerator control room with a dedicated power outlet to prevent damage during incinerator operation.
- Due to limited material availability on site, material substitutions were made for run of quarry granular fill in the building pad.

6. Performance Evaluation

As of the data collection cut-off date for this report (November 25, 2014) there have been no adverse observations in operational performance of the Mine Site waste management package.

Before the incinerator was installed at its permanent location, the equipment was operated in its temporary location using an incorrect waste recipe due to operator error, causing some damage to the inner liner of the incinerator. The inner liner was repaired, and the equipment has since been operating with no adverse effects observed.

7. Vibration Monitoring and Quarrying Activity

No vibration monitoring was conducted during the construction of the Mine Site waste management package as it was not deemed necessary based on scope of activities required for construction.

Control for quarrying activity was conducted as per the project's specific management plans:

- BAF-PH1-830-P16-0040 (H349000-4100-07-245-0001): Quarry Management Plan Mine Site Quarry (QMR2).
- BAF-PH1-830-P16-0004 (H349000-1000-07-126-0011): Borrow Pit and Quarry Management Plan.

8. Environmental Monitoring

Environmental monitoring during the construction of the Mine Site waste management package was conducted as per the BAF-PH1-830-P16-0008 Environmental Protection Plan (EPP) recently updated in July 2014.

In addition to the EPP, BIM self-performed earthworks construction follows the requirements of the BAF-PH1-830-STD-0001 Environmental Health and Safety Management Framework issued December 2010. The Baffinland on-site Environmental Management Team was responsible for environmental monitoring at all sites during construction and following-up with the construction team(s) if there were any reported environmental incidents or non-conformances.

Waste management construction was also required to follow the requirements of the Surface Water and Aquatic Ecosystems Management Plan (March 2014), BAF-PH1-830-P16-0026. This Management Plan outlines the best management practices implemented to limit the potential for adverse impacts to receiving waters, aquatic ecosystems, fish and fish habitat used during construction. In addition this plan details the systems in place to mitigate and manage drainage and runoff at the building sites, address point and non-point discharges to surface waters and assess those discharges on water quality and quantity relative to their receiving water systems.

The Spill Contingency Plan (March 2014), BAF-PH1-830-P16-0036, in conjunction with the Emergency Response Plan (March 2014), BAF-PH1-830-P16-0007, provides guidance and instructions for first responders and Baffinland Management in the event of a spill event or other emergency such as fire or accident.

The risks to the water quality in the respective rivers and streams as a result of construction of the waste management package would originate from following sources based on construction methodology:

- Spills from equipment.
- Increase in sediment load in the water.

There were no recorded spills from equipment used at the construction site. During the period of construction, water quality monitoring conducted at downstream stations under Part D, Section 16 and Part I, of the Type "A" Water Licence 2AM-MRY1325 indicated total suspended solids (TSS) and other parameter at levels below the specified Water Licence

criteria. The results for water quality monitoring were provided in monthly reports submitted to the Nunavut Water Board and other stakeholders. In consideration of the above, the environmental mitigation strategies were effective in maintaining runoff water quality.

9. Earthworks Data

The survey data collected has been included in Appendix B.

10. Unanticipated Observations

There were no unanticipated observations during construction of the Mine Site waste management package.

11. Surface Monitoring

Not conducted.

12. Required Maintenance

None conducted to-date.

13. Adaptive Management

For discussion of adaptive management principles and practices applied during the Construction Phase of the Project and their overall effectiveness please refer to the 2013 Annual Report to the Nunavut Impact Review Board. Any additional adaptive management practices implemented as a result of works completed in 2014 will be reported in the updated 2014 Annual Report to the Nunavut Impact Review Board.

14. Concordance with Type “A” Water Licence

The Nunavut Water Board Type “A” Licence 2AM-MRY1325, Schedule D, outlines the requirements for Construction Monitoring Reports. The following table provides a concordance of the report, herein, with the requirements included in Part D.

Table 14-1: Table of Concordance for Schedule D

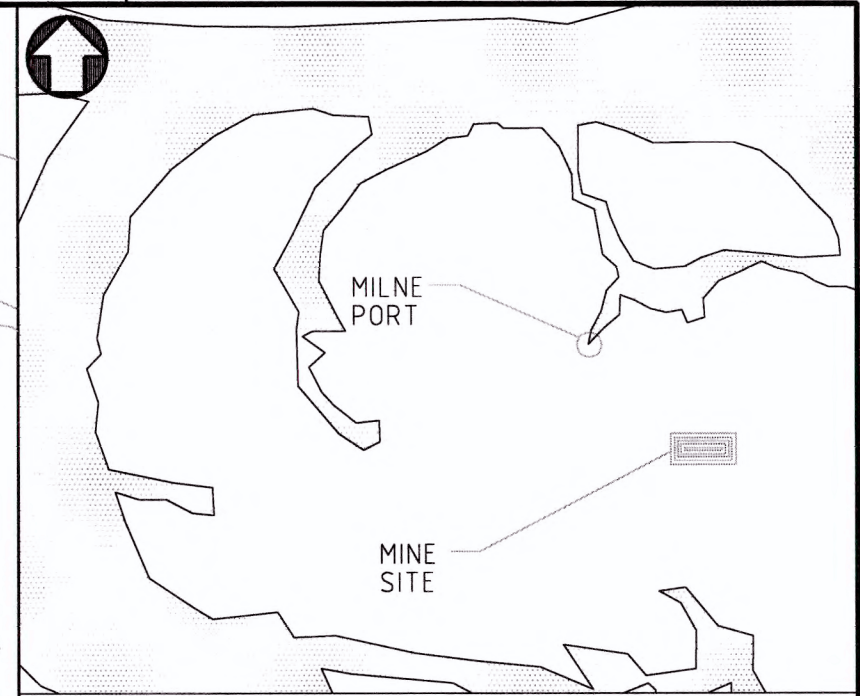
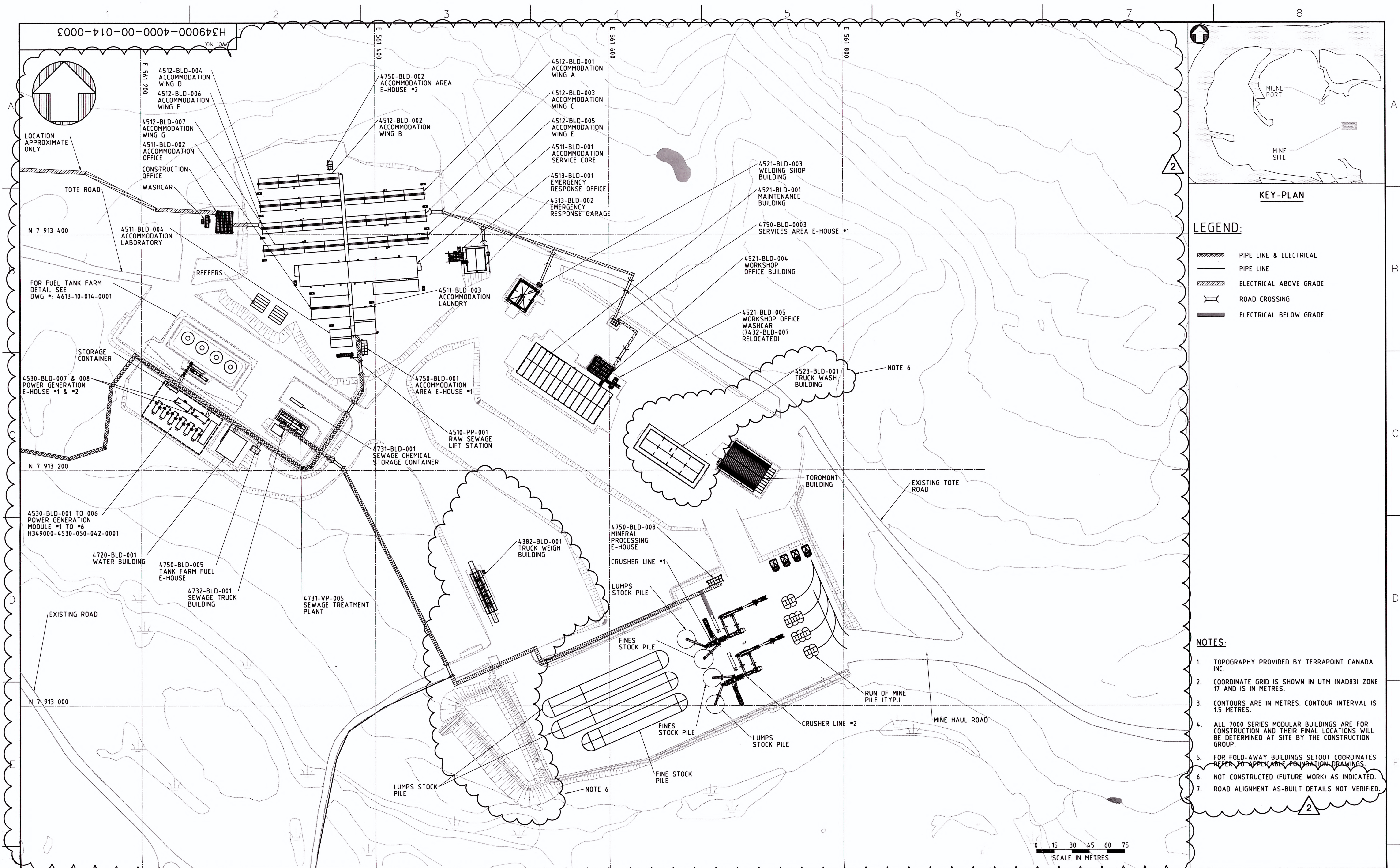
Schedule D Item No.	Schedule D Description	Corresponding Section in this Report
1a	description of all infrastructure and facilities designed and constructed to contain, withhold, divert or retain Water and/or Waste;	1
1b	a summary of construction activities including photographic records before, during and after construction of the facilities and infrastructure designed to contain, withhold, divert or retain Water and/or Waste;	2, 3

Schedule D Item No.	Schedule D Description	Corresponding Section in this Report
1c	as-built drawings and design for facilities and infrastructure, in Item 1(a) of this schedule, designed and constructed to contain, withhold, divert or retain Water and/or Waste;	4
1d	documentation of field decisions that deviate from the original plans and any data used to support or developed facilities and infrastructure to withhold, divert or retain Water and/or Waste;	5
1e	a comparison of measured versus predicted performance of infrastructure and facilities;	6
1f	any blast vibration monitoring and control for quarrying activity carried out in close proximity to fish bearing waters;	7
1g	monitoring conducted for sediment and explosives residue release from construction areas;	8
1h	monitoring undertaken in accordance with Part D of the during the Construction Phase of the Project;	8
1i	details confirming that the requirements of the CCME guidance document entitled "Aboveground Storage Tank Systems for Petroleum and Allied Petroleum Products (2003)" have been met by the Licensee;	N/A
1j	data collected from instrumentation used to monitor earthworks and the interpretation of that data;	9
1k	a discussion of any unanticipated observations including changes in risk and mitigation measures implemented to reduce risk during construction;	10
1l	an overview of any method including frequency used to monitor deformations, seepage and geothermal responses;	11
1m	a summary of maintenance work undertaken as a result of settlement or deformation of dikes and dams;	12
1n	a summary of adaptive management principles and practices applied during the relevant phases of the Project and their overall effectiveness.	13

Appendix A

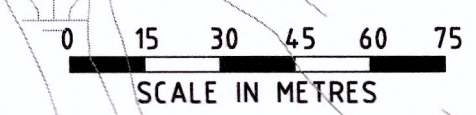
As-Built Drawings

- A. H349000-4000-00-014-0003 Rev02: Mine Site Infrastructure Site Layout **[1 page]**
- B. H349000-4000-00-014-0018 Rev00: Mine Site Infrastructure & Utilities Site Layout **[1 page]**
- C. H349000-4000-00-014-0019 Rev00: Mine Site Infrastructure & Utilities Site Layout **[1 page]**
- D. H349000-4540-75-031-0001 Rev01: Mine Site Waste Management Piping & Instrumentation Diagram **[1 page]**



- LEGEND:**
- PIPE LINE & ELECTRICAL
 - PIPE LINE
 - ELECTRICAL ABOVE GRADE
 - ROAD CROSSING
 - ELECTRICAL BELOW GRADE

- NOTES:**
- TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
 - COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
 - CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 1.5 METRES.
 - ALL 7000 SERIES MODULAR BUILDINGS ARE FOR CONSTRUCTION AND THEIR FINAL LOCATIONS WILL BE DETERMINED AT SITE BY THE CONSTRUCTION GROUP.
 - FOR FOLD-AWAY BUILDINGS SETOUT COORDINATES REFER TO APPLICABLE FOUNDATION DRAWINGS.
 - NOT CONSTRUCTED (FUTURE WORK) AS INDICATED.
 - ROAD ALIGNMENT AS-BUILT DETAILS NOT VERIFIED.



H349000-4613-10-014-0001	MINE SITE - EARLY REVENUE PHASE - SITE G.A.
DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

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NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
2	AS BUILT	J.B.	S.H.	J.C.	2013-02-06
1	BUILDING COORDINATES TABLE ADDED	D.K.	T.T.	T.T.	2013-08-14
REVISIONS					

AS BUILT

REVISED AS MARKED. ALL OTHER DETAILS CONSTRUCTED WITHIN ACCEPTABLE TOLERANCES.

REV.	ISSUE FOR	AUTH. BY	DATE
2	AS BUILT	S.H.	J.C. 2013-02-06
1	FOR CONSTRUCTION	T.T.	J.C. 2013-08-14
0	FOR CONSTRUCTION	T.T.	J.C. 2013-06-07
ISSUE AUTHORIZATION			

DESIGNED BY T. THERTELL DATE 2013-04-11	DRAWN BY D. KARUNAKARAN DATE 2013-04-11
CHECKED BY C. LEISTNER DATE 2013-08-14	DISCIP. ENGR. J. LEMAY DATE 2013-08-14
PROJ. DES. COORD. T. THERTELL DATE 2013-08-14	PROJ. ENGR. J. CLELAND DATE 2013-08-14
PROJ. MGR. S. PERRY DATE 2013-08-14	

Baffinland	
MARY RIVER PROJECT	
MINE SITE INFRASTRUCTURE SITE LAYOUT	
SCALE 1:1500 OR AS NOTED	DWG. NO. H349000-4000-00-014-0003
ORIGINAL SHEET SIZE: ISO A1 (841 x 594)	REV. 2