BAFFINLAND IRON MINES CORPORATION, MARY RIVER PROJECT, QIA 2016 COMPREHENSIVE SECURITY ESTIMATE

December 2, 2015

Submitted to: **QIKIQTANI INUIT ASSOCIATION**

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December 2, 2015

Qikiqtani Inuit Association
P.O. Box 1340
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ATTENTION: Stephen Williamson Bathory

RE: BAFFINLAND IRON MINES CORPORATION, MARY RIVER PROJECT, QIA 2016 COMPREHENSIVE SECURITY ESTIMATE

ARKTIS Solutions Inc. is pleased to provide the Baffinland Iron Mines Corporation, Mary River Project, QIA 2016 Comprehensive Security Estimate, which was completed on behalf of the Qikiqtani Inuit Association under the terms of the land lease (Commercial Lease No.: Q13C301) with Baffinland Iron Mines Corporation.

We trust that the information presented in this report satisfies the requirements of the project. Please do not hesitate to contact the undersigned if there are any questions or comments regarding this report.

Sincerely,

ARKTIS Solutions Inc.

Jamie VanGulck, Ph.D., P.Eng.
Chief Technical Officer

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1.0 INTRODUCTION

ARKTIS Solutions Inc. (ARKTIS) submits this report to the Qikiqtani Inuit Association (QIA) that provides a complete reclamation security estimate of Baffinland Iron Mines Corporation's (BIMC) 2016 Work Plan[1] for the Mary River Project (Project). The annual security determination is required as per Section 9.2, Item (d), of the Commercial Production Lease No. Q13C301 (CPL),[2] as well as, by the Nunavut Water Board (NWB) for BIMC's Type 'A' Water Licence No. 2AM-MRY1325.[3]

The reclamation security estimate provided herein incorporates information from previous QIA reclamation security estimates (2014,[4] 2015,[5] and 2015 Addendum[6]), changes that have occurred at the Project since these estimates, as well as, planned activities listed in BIMC's 2016 Work Plan. In other words, this security estimate includes both a revised 2015 security value and a 2016 marginal security value. The reclamation security does not include activities on Crown Lands (e.g., Steensby Inlet, Ore dock), nor does it address the Type 'B' Exploration Water Licence No. 2BE-MRY1421.[7]

This report is structured as follows:

- Section 2.0 outlines the methodology and assumptions used to develop this reclamation security estimate.
- Section 3.0 presents the analysis and results of the Direct Costs in the reclamation security estimate.
- Section 4.0 presents the analysis and results of the Indirect Costs in the reclamation security estimate.
- Section 5.0 provides a summary of both the Direct and Indirect Costs in the reclamation security estimate, in addition to a summary of the recommendations from the analysis.
- Section 6.0 provides a disclaimer for the contents of this report and a closure of the document.
- Appendix A includes the detailed results of items added to the reclamation security estimate.
- Appendix B includes the detailed results of items removed from the reclamation security estimate.
- Appendix C provides supporting information for quantities used in the reclamation security estimate.
- Appendix D presents details used in the development of select unit costs.
- Appendix E presents the general terms and conditions of this report.

[1] BIMC (2015) 2016 Work Plan. October 30, 2015.

[2] QIA and BIMC (2013) Commercial Lease No. Q13C301. September 6, 2013.

[3] NWB (2015) Type 'A' Water Licence No.: 2AM-MRY1325, Amendment No. 1. July 31, 2015.

[4] ARKTIS (2014) QIA 2014 Comprehensive Security Estimate. December 12, 2014.

[5] ARKITS (2014) QIA 2015 Comprehensive Security Estimate. December 5, 2014.

[6] ARKTIS (2015) QIA Revised 2015 Comprehensive Security Estimate. January 13, 2015.

[7] NWB (2014) Type 'B' Water Licence No.: 2BE-MRY-1421. April 17, 2014.

2.0 METHODOLOGY

The reclamation security estimate was developed in accordance with the methodologies detailed in the QIA 2014 Comprehensive Security Estimate,[4] the QIA Abandonment and Reclamation Policy),[8] and generally applies the principles outlined by Aboriginal Affairs and Northern Development Canada (AANDC).[9]

The revised 2015 security estimate[6] was adjusted based on observations and discussions with BIMC during the QIA's following site visits:

- July 2015 Environmental Inspection[10]
- August 2015 Audit[11]
- September 2015 Environmental Inspection.[12]

The 2016 marginal increase was calculated from the sum of direct costs and indirect costs associated with activities occurring on IOL as reported by BIMC in the 2016 Work Plan.[1] Information utilized in developing the updated reclamation security estimate was largely collected from the following sections of the 2016 Work Plan:

- Section 3.0 – Annual Scope of Operations and Work
- Section 7.0 – Materials to be Shipped Off the Property
- Section 8.0 – Materials to be Shipped to the Property
- Appendix A – 2016 Work Plan Site Layouts
- Appendix B – 2016 Marginal Closure and Reclamation Financial Security Estimate (H349000-1000-07-126-0002)

Additionally, the QIA and BIMC held a teleconference call on November 30, 2015, to collect additional information to aid in the completion of the security estimate.[13]

Direct costs and indirect costs were calculated using developed/researched unit costs as described in QIA's 2014 Comprehensive Security Estimate.[4] The reclamation security estimate was based on the information available at the time of report development.

3.0 DIRECT COSTS ANALYSIS

The following sections describe in detail, by reclamation activity, changes to Direct Costs associated with the 2015 Audit and the 2016 Work Plan. A summary of Direct Costs can be found in Table 12. An itemized

[8] QIA (n.d.) Abandonment and Reclamation Policy for Inuit Owned Lands. V. 2.0.

[9] INAC (2002) Mine Site Reclamation Policy for Nunavut.

[10] ARKTIS (2015) Baffinland Iron Mines Corporation, Mary River Project, July 2015 Environmental Inspection Report. September 10, 2015.

[11] ARKTIS (2015) Baffinland Iron Mines Corporation, Mary River Project, 2015 Audit Report. October 13, 2015.

[12] ARKTIS (2015) Baffinland Iron Mines Corporation, Mary River Project, September 2015 Environmental Inspection Report. October 26, 2015.

[13] November 30, 2015, teleconference call between the QIA, ARKTIS, BIMC, and Hatch.

list of Direct Costs added to the reclamation security estimate is provided in Appendix A, while Appendix B provides an itemized list of Direct Costs removed from the reclamation security estimate.

3.1 Fill Application

Table 1 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with Fill Application. The unit costs for Fill Application established by ARKTIS and BIMC during the 2014 ASR differ by $1.06/m^2, which also amounts to a portion of the cost difference (Table 1); the unit costs used by the two parties will not be discussed further here. The majority of the cost difference in the estimates are detailed within the table.

3.1.1 Infrastructure on Crown Land

ARKTIS noted that the reclamation activities for infrastructure located on Crown Land, such as the Shiploader and Mobile Maintenance Facility at KM 60, are unknown to at this time; however may be presented within BIMC's security estimate for the Crown which has not been reviewed at this time. Should the demolition materials from these facilities be landfilled on IOL in a reclamation scenario, a tipping fee for disposal of said material would be required. The QIA has previously notified the Crown of this aspect.[14] BIMC indicated that these items would not be landfilled on IOL at closure, during the November 30, 2015, teleconference call.

ARKTIS recommends that the Crown consider the method of disposal of demolition materials from the Shiploader and Mobile Maintenance Facilities in the establishment of reclamation costing.

[14] QIA August 11, 2014, letter to AANDC titled, "Baffinland Iron Mines Corporation, Mary River Project – Milne Inlet Ore Dock."

Table 1. Comparison of Direct Costs associated with Fill Application.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Fill Application Removed in 2016	-12,058	-8,598	$44.37	$43.31	-$535,000	-$372,400	The difference in quantities of Fill Application Removed in 2016 is likely a reflection of differences in calculating quantities for Fill Application in previous security estimates; however, ARKTIS notes that Fill Application is not reported in a line by line item but rather as a single cumulative line item, thereby making difficult to identify individual item differences.
Fill Application Added for 2016	6,150	5,141	$44.37	$43.31	$272,900	$223,000	The difference in quantities is likely due to different quantities calculated from the 2016 Work Plan. As ARKTIS noted above, Fill Application is not reported in a line by line item but rather as a single cumulative line item, thereby making difficult to identify individual item differences. ARKTIS and BIMC also differ on the reclamation method for 3rd party owned equipment (Section 3.5 and 4.1), which partially impacts the difference in this line item.
SUB-TOTAL DIRECT COSTS					-$262,100	-$149,400	
DIFFERENCE					-$112,700		

3.2 Grade and Recontour

Table 2 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with the grading and re-contouring. The direct cost difference of about $2.0 million is a result of:

- Differences in the 2015 Addendum security estimates which are carried forward into the 2016 Work Plan estimate ($78,000)
- The unit costs for grading and recontouring established by ARKTIS and BIMC during the 2014 ASR differ by $0.12/$m^2$.
- The bulk of the difference in the estimates are further detailed below and are associated with differences in areas to be graded and recontoured.

Table 2. Comparison of Direct Costs associated with Grade and Recontour.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Abandoned Tote Road Alignments	266,500	266,500	$1.81	$1.93	$482,400	$514,300	Pursuant to Section 2.7 of the CPL, BIMC is required to return abandoned sections of the Tote Road to conditions consistent with the natural environment. The area of the abandoned Tote Road sections was estimated to be 266,500 m^2 during the 2015 Audit. This figure assumes that the old alignments have a length of 26.65 km (length of new alignments, 20.5 km, [15] multiplied by 1.3 to account for increased length of old alignments) and a width of 10 m. The 1.3 factor was calculated by Hatch and ARKTIS during the 2015 Audit.
Abandoned Tote Road Alignments from 2016 Upgrades	0	40,000	$1.81	$1.93	$0	$77,200	The 2016 Work Plan proposes upgrades to eight locations along the Tote Road of unknown design and scale. Details of the design and scale are not available at this time from BIMC. ARKTIS has assumed that for each upgrade, 500 m of abandoned Tote Road will be created, and again assumes a road width of 10 m along these segments, resulting in an additional 40,000 m^2 for grade and recontour. BIMC has not accounted for any additional abandoned Tote Road segments with the new 2016 upgrades. **It is ARKTIS' position that the security estimate include an additional line item for abandoned Tote Road sections resulting from 2016 Tote Road upgrades.**
Tote Road Large Road Cuts	0	18,000	$1.81	$1.93	$0	$34,700	The large, steep-sided road cuts, which have been constructed as part of the new Tote Road alignment in 2015, present a safety concern for wildlife and humans

[15] ARKTIS (2015) Baffinland Iron Mines Corporation, Mary River Project, July 2015 Environmental Inspection Report. September 10, 2015.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
							traveling through the area during post-closure. For the time being, ARKTIS has adopted the grade and recontour unit costs for this activity, but recognizes that the slopes may require significant blasting that is not included in the grade and recontour unit costs; therefore ARKTIS will continue to seek a more robust unit cost for this activity for future security estimates. ARKTIS has assumed a length of 1,500 m and a width of 12 m for the KM 77 and KM 75 upgrades completed in 2015. BIMC has not accounted for ensuring these locations to not pose a post-closure health and safety concern. Rather, it is BIMCs position that this activity would be completed in the near future as part of operations. ARKTIS argues until the work is completed, the cost to address this liability must be included in the reclamation security. **It is ARKTIS' position that the security estimate include a line item for mitigating the post-closure health safety concern associated with the large cuts along the Tote Road.**
Tote Road Unidentified Disturbed Areas	-250,820	233,222	$1.81	$1.93	-$454,000	$450,100	During the 2015 Audit, ARKTIS and Hatch discussed updating the area used for the Tote Road Unidentified Disturbed Areas based on the latest EBA Tetra Tech Report,[22] and the methods used by ARKTIS and BIMC during the 2014 ASR,[23] summarized in Section 3.2.1. **It is ARKTIS' position that a multiplier of two be used to account for borrow sources not listed in the EBA report.**
Deposit # 1 Open Pit	214,450	214,500	$1.81	$1.93	$388,200	$413,900	BIMC provided an estimated footprint for the open pit for end of year 2017.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Q1 Quarry	0	-107,000	$1.81	$1.93	$0	-$206,500	ARKTIS has decreased the footprint of the Q1 Quarry from 171,200 m^2 to the total approved area in the Q1 Quarry Management Plan,[16] as the quantities applied to the other approved quarries and borrow sources used the footprints presented in their respective Quarry Management Plans.**Error! Bookmark not defined.** The total proposed area for the quarry is listed as 64,200 m^2, while the total permitted area is 894,700 m^2. **It is ARKTIS' position that the quantity for the Q1 Quarry in the security estimate align with the proposed area (64,200 m^2) in the Q1 Quarry Management Plan. This is in agreement with the quantity used by BIMC.**
D1Q1 Quarry	-66,978	0	$1.81	$1.93	-$121,200	$0	The D1Q1 quarry is located within the boundaries of the Mining Lease No. 2485, and the footprint of the proposed life-of-mine open pit. With commencement of mining activities in the autumn of 2014, the D1Q1 quarry is no longer required by BIMC since waste rock is available for construction purposes. As such, BIMC has removed the D1Q1 quarry from the reclamation security estimate and the open pit area in the reclamation security estimate has been increased to account for its size by end of year 2017. However, the proposed 2017 open pit footprint does not encompass the D1Q1 quarry location.[11] ARKTIS has not removed the D1Q1 quarry from the security estimate. **It is ARKTIS' position that the 66,978 m^2 allocated to the D1Q1 quarry in the reclamation security**

[16] BIMC (2013) Operations and Management Plan Milne Inlet Quarry (Q1). March 6, 2013.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
							estimate <u>not be removed</u> until the open pit footprint encompasses the full D1Q1 quarry footprint.
KM 104 Borrow Source	0	56,500	$1.81	$1.93	$0	$109,000	The KM 104 Borrow Source has been historically used by BIMC under the name Rock Quarry No. 2. The KM 104 Borrow Source was approved for use in 2015.[17] The permitted borrow source area is 56,500 m^2.[18] BIMC has not included a line item for the KM 104 Borrow Source. BIMC has previously account 42,080 m^2 for this area.
Proposed 2016 Quarries and Borrows	119,271	119,271	$1.81	$1.93	$215,900	$230,200	ARKTIS and BIMC have used the same areas for Quarries and Borrow Sources, as presented in the 2016 Work Plan.
Existing Waste Storage Areas	-2,705	12,752	$1.81	$1.93	-$4,900	$24,600	BIMC provided surveyed areas for all Waste Storage Areas, [19] which includes all hazardous waste berms, polishing waste stabilization ponds (PWSPs), as well as the Milne Port landfarm and Mary River landfill. ARKTIS has updated all Waste Storage Areas to align with these surveyed areas. **It is ARKTIS' position that the quantities for all Waste Storage Areas in the security estimate align with the Canadian Land Surveyor drawings from April 10, 2015 unless more recent data is available.** BIMC has agreed to update the footprints for waste storage areas based on the Canadian Land Surveyor Drawings.**Error! Bookmark not defined.**

[17] QIA July 2015, letter to BIMC titled, "Baffinland Iron Mines Corporation's, KM104 Borrow Source – Qikiqtani Inuit Association Approval."

[18] BIMC (2014) KM 104 Borrow Source Management Plan, BAF-PH1-830-P16-0035, Rev 0. March 20, 2014.

[19] Monteith and Sutherland Ltd. (2015) Mary River and Milne Inlet Waste Storage Areas. April 10, 2015.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Milne Inlet Fuel Bladder Farm	-18,482	-12,209	$1.81	$1.93	-$33,500	-$23,600	BIMC has removed the Milne Inlet Fuel Bladder Farm from the security estimate. As described in the 2015 Audit Report,[20] the reclamation of the Milne Inlet Fuel Bladder Farm has not yet been completed to the standards of the QIA, but the berms have been removed. **It is ARKTIS' position that a partial reclamation security credit be awarded for reclaiming the Milne Port Fuel Bladder Farm as the berms and liners have been removed but the underlying soil has not been reclaimed to the standards of the QIA.**
SUB-TOTAL DIRECT COSTS					$472,900	$1,623,900	
DIFFERENCE					-$1,151,000		

[20] ARKTIS (2015) Baffinland Iron Mines Corporation, Mary River Project, 2015 Audit Report. October 13, 2015.

3.2.1 Tote Road Unidentified Disturbed Areas Method of Calculation

The current reclamation security accounts for disturbed areas (i.e., borrow sources) along the Tote Road, estimated from the borrow sources reported by EBA.[21] In 2015, Tetra Tech EBA released an updated report of the Tote Road borrow sources;[22] during the 2015 Audit, ARKTIS and BIMC agreed to update the quantities for these disturbed areas using the updated report and following the methods used previously by BIMC during the 2014 ASR. [23] The report has four categories of borrow sources (Table 3): category A+ and A borrow sources have extensive permafrost degradation, category B borrow sources have some permafrost degradation, and category C borrow sources are stable. Both ARKTIS and BIMC use an increased unit rate (Grade and Re-Contour of Significant Disturbed Areas) for the category A+ and A borrow sources to account for the increased effort required for reclamation of these areas. Finally, the quantity used in the reclamation security estimate doubles the number of borrow sources, listed in the Tetra Tech EBA report, in each category to account for borrow sources not described in the report; BIMC has not doubled the number of borrows in the report in their 2016 security estimate. The number of borrow sources was doubled in BIMC's 2014 security estimate and therefore this is a change from the previous method of assessment.

Table 3. An updated list of borrow sources from the 2015 Tetra Tech EBA report.

Borrow Source Category	Average Estimated Area (m^2) [a]	Number of Borrow Sources in Report [b]	Recommended Number of Borrow Sources in Security Estimate [c]
A+ and A	5,853	18	36 [d]
B	15,276	19 [c]	38 [d]
C	5,276	57	114 [d,e]

Notes:

[a.] BIMC (2014) Baffinland Iron Mines Corporation, Mary River Project, 2014 Complete Project Financial Security Estimate. October 31, 2014.

[b] The number does not include approved borrow sources (i.e., KM 2, KM 97, KM104) or borrow sources located on crown land.

[c] BIMC has 26 Type B borrow sources listed.

[d] Inspection of the Tote Road during the QIA's July 2015 Environmental Inspection and 2015 Audit identified several new borrow sources/disturbed areas associated with recent construction activities that were not listed in either EBA report. Additionally, several existing borrow sources had been recently disturbed; since, the borrow areas in the Tetra Tech EBA (2015) report are based on surveys from 2008 and 2009, it seems possible that many of the borrow sources may have increased in size. As such, ARKTIS has applied a multiplier of two to the borrow sources.

[e] Tetra Tech EBA (2015) states, "There are quite of few borrows not on the list," and that "They can be considered as Priority C." Therefore ARKTIS has applied a multiplier of two to Priority C borrow sources.

[21] EBA Engineering Consultants Ltd. (2009) Borrow Site Reclamation Overview, Milne Inlet Access Road, Mary River Project, Baffin Island, NU. December 2009.

[22] Tetra Tech EBA (2015) Inspection of the Milne Inlet Tote Road and Associated Borrow Sources. March 2015.

[23] BIMC (2014) Baffinland Iron Mines Corporation, Mary River Project, 2014 Complete Project Financial Security Assessment. October 31, 2014.

3.3 Liner Removal

Table 4 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with liner removal. The unit costs for liner removal established by ARKTIS and BIMC during the 2014 ASR differ by $0.09/m^2, which also amounts to a small portion of the difference (Table 4); the unit costs used by the two parties will not be discussed further here. The bulk of the cost difference in the estimates is presented in the following table.

Table 4. Comparison of Direct Costs associated with Liner Removal.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Existing Waste Storage Areas	-4,178	16,967	$3.50	$3.41	-$14,600	$57,900	As discussed in Table 2 above, ARKTIS has updated all Waste Storage Areas to align with the surveyed areas. BIMC updated some Waste Storage Areas, although it is unclear where they obtained the areas used in the reclamation security. **It is ARKTIS' position that the quantities for all Waste Storage Areas in the security estimate align with the Canadian Land Surveyor drawings from April 10, 2015.** BIMC has agreed to update the footprints for waste storage areas based on the Canadian Land Surveyor Drawings.**Error! Bookmark not defined.**
Milne Port Fuel Bladder Farm	-18,482	-12,209	$3.50	$3.41	-$64,700	-$41,600	As discussed in Table 2 above, BIMC has removed the Milne Inlet Fuel Bladder Farm from the security estimate, whereas ARKTIS maintains the position that the reclamation of the Milne Inlet Fuel Bladder Farm has not yet been fully completed to the standards of the QIA, however the liner has been removed. **It is ARKTIS' position that a partial reclamation security credit be awarded for reclaiming the Milne Port Fuel Bladder Farm as the berms and liners have been removed but the underlying soil has not been reclaimed to the standards of the QIA.**
Milne Port Refueling Module	0	2000	$3.50	$3.41	$0	$6,800	ARKTIS has included a line item for the Milne Port Refueling Module that is currently being constructed. ARKTIS estimated the area of the refueling module to be 2,000 m^2 based off drawings[24] provided by BIMC during the September 2015

[24] Martin, Barry H. (2015) Mary River Fueling Station, Site Plan and Details. Drawing # C01. September 10, 2015.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
							Inspection. BIMC has agreed to add a line item for the liner at this location. **It is ARKTIS' position that a line item be added for the Milne Port Refueling Module.**
Additional Refueling Module	0	2000	$3.50	$3.41	$0	$6,800	ARKTIS has included a line item for an additional Refueling Module that is planned for construction in 2016. BIMC stated that the plans for the facility were not yet finalized, however, that it would be very similar to the Milne Port Refueling Module that is currently under construction.**Error! Bookmark not defined.** Therefore, ARKTIS estimated the area of the refueling module to be 2,000 m^2 based off drawings provided by BIMC during the September 2015 Inspection. BIMC has agreed to add a line item for the liner at this location. **It is ARKTIS' position that a line item be added for the Additional Refueling Module.**
Anmar Workshop	0	1,670	$3.50	$3.41	$0.00	$5,700	During the September 2015 Inspection Report, ARKTIS noted that the building material had be packaged into sea cans for shipment offsite, and only the liner and potentially contaminated soil remained in place. BIMC has agreed to add a line item for the liner at this location. **Since, it is the QIA's policy that reclamation security credits only be awarded upon receipt of a reclamation report demonstrating remediation to the QIA's satisfaction, ARKTIS has included this line item.**
SUB-TOTAL DIRECT COSTS					-$128,600	-$21,800	
DIFFERENCE					-$106,800		

3.4 Grade and Recontour Significant Disturbed Areas

Table 5 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with the grading and re-contouring of significantly disturbed areas (i.e. areas with large amounts of permafrost degradation such as KM 97 Borrow Source).

Table 5. Comparison of Direct Costs associated with Grade and Recontour of Significantly Disturbed Areas.

Item	Quantity (m^2)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Tote Road Unidentified High Priority Disturbed Areas - 2016	73,838	179,187	$2.72	$2.90	$200,800	$519,600	During the 2015 Audit, ARKTIS and Hatch discussed updating the area used for the Tote Road Unidentified High Priority Disturbed Areas based on the latest EBA Tetra Tech Report,[22] and the methods used by ARKTIS and BIMC during the 2014 ASR,[23] summarized in Section 3.2.1. **It is ARKTIS' position that a multiplier of two be used to account for borrow sources not listed in the EBA report.**
SUB-TOTAL DIRECT COSTS					$200,800	$519,600	
DIFFERENCE					-$318,800		

3.5 Mobile Equipment

Table 6 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with Mobile Equipment. The unit costs for Mobile Equipment established by ARKTIS and BIMC during the 2014 ASR differ by a small amount, which also accounts for a portion of the difference (Table 6); the unit costs used by the two parties will not be discussed further here.

The difference in the estimates is a result of ARKTIS and BIMC applying different reclamation activities to 3rd party equipment. BIMC is still uncertain if equipment being brought to site in 2016 will be BIMC or 3rd Party owned equipment.**Error! Bookmark not defined.** ARKTIS has applied the higher unit cost for backhauling 3rd party equipment (Section 4.1) to remain conservative. BIMC has applied unit costing to landfill the equipment at site; BIMC is also of the opinion that the Indirect Costs for mobilization and demobilization of reclamation equipment is sufficient to cover backhauling 3rd party equipment already at site (i.e., BIMC's opinion is that they providing doubled security for these items due to uncertainty).**Error! Bookmark not defined.** The basis for BIMC's position is unclear and not agreeable to ARKTIS.

The number of Light, Medium, and Heavy Mobile Equipment rose by adopting the Baffinland Mobile Equipment SAP List from September 24, 2015, as the full list of equipment on site. BIMC has stated that no 3rd party equipment is included in the SAP List.**Error! Bookmark not defined.**

For the present, ARKTIS has adopted BIMC's classification of Light, Medium, and Heavy Mobile Equipment, but has yet to fully verify the SAP List against the classifications used previously by ARKTIS. This is an activity that will be updated in future security estimates if timing does not permit during this year's Annual Security Review.

Table 6. Comparison of Direct Costs associated with Mobile Equipment.

Item	Quantity (No.)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Light Mobile Equipment – Net change using SAP List	10	11	$941.09	$938.16	$9,400	$10,300	ARKTIS has adopted the Baffinland Mobile Equipment SAP List from September 24, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Light Mobile Equipment in the 2015 security estimate and added the Light Mobile Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mobile Equipment.
Light Mobile Equipment – 2016 Work Plan	34	0	$941.09	$938.16	$32,000	$0	BIMC has stated that all equipment in the 2016 Work Plan could potentially be 3rd party equipment. ARKTIS has therefore applied the more conservative unit rate for backhauling 3rd party equipment (Section 4.1). BIMC and ARKTIS have identified the same number of equipment pieces in the 2016 Work Plan.
Medium Mobile Equipment – Net change using SAP List	2	2	$1,494.13	$1,559.26	$3,000	$3,100	ARKTIS has adopted the Baffinland Mobile Equipment SAP List from September 24, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Medium Mobile Equipment in the 2015 security estimate and added the Medium Mobile Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mobile Equipment.
Medium Mobile Equipment – 2016 Work Plan	28	0	$1,494.13	$1,559.26	$41,800	$0	BIMC has stated that all equipment in the 2016 Work Plan could potentially be 3rd party equipment. ARKTIS has therefore applied the more conservative unit rate for backhauling 3rd party equipment (Section 4.1). BIMC and ARKTIS have identified the same number of equipment pieces in the 2016 Work Plan.
Heavy Mobile Equipment – Net change using SAP List	73	73	$2,618.87	$2,251.31	$191,200	$164,300	ARKTIS has adopted the Baffinland Mobile Equipment SAP List from September 24, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Heavy Mobile Equipment in the 2015 security estimate and added the Heavy Mobile

Item	Quantity (No.)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
							Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mobile Equipment.
Heavy Mobile Equipment – 2016 Work Plan	25	0	$2,618.87	$2,251.31	$65,500	$0	BIMC has stated that all equipment in the 2016 Work Plan could potentially be 3rd party equipment. ARKTIS has therefore applied the more conservative unit rate for backhauling 3rd party equipment (Section 4.1). BIMC and ARKTIS have identified the same number of equipment pieces in the 2016 Work Plan.
SUB-TOTAL DIRECT COSTS					$342,900	$177,700	ARKTIS has estimated $724,700 to backhaul 3rd party equipment in a reclamation scenario (Table 9).
DIFFERENCE					$165,200		

3.6 Mechanical Equipment

Table 7 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with Mechanical Equipment. The Direct Costs associated with Mechanical Equipment account for nearly $1 million of the difference between the ARKTIS and BIMC estimates. The unit costs for Mechanical Equipment established by ARKTIS and BIMC during the 2015 ASR differ by a small amount, which also accounts for a portion of the difference (Table 7); the unit costs used by the two parties will not be discussed further here. The bulk of the difference in the estimates is a result of adopting the Baffinland Fixed Plant Equipment SAP List from September 25, 2015, as the full list of equipment on site. Upon inspection of the SAP List, there appears to be a difference in the classification between heavy and medium equipment in the 2016 estimate compared to 2015. The reason for this apparent inconsistency is unknown.

The number of Light, Medium, and Heavy Mobile Equipment decreased by a large amount with the adoption of the new inventory list. BIMC has stated that no 3rd party equipment is included in the SAP List.**Error! Bookmark not defined.** As there is no 3rd party mechanical equipment listed in the 2016 Work Plan, ARKTIS assumes that BIMC is stating there is no 3rd party mechanical equipment at the Project. This aspect is considered unlikely and an area of uncertainty in the ARKTIS security estimate.

ARKTIS also notes that some items previously in the security estimate are no longer accounted for (e.g., stockpile generators) and that some items have been reclassified without BIMC providing reasoning (e.g., Mobile Feeder).

For the present, ARKTIS has adopted BIMC's classification of Light, Medium, and Heavy Mechanical Equipment, but has yet to fully verify the SAP List against the classifications used previously by ARKTIS. This is an activity that will be updated in future security estimates if timing does not permit during this year's Annual Security Review.

Table 7. Comparison of Direct Costs associated with Mechanical Equipment.

Item	Quantity (No.)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Light Equipment – Net change using SAP List	-81	-81	$1,980.80	$1,784.11	-$160,400	-$144,500	ARKTIS has adopted the Baffinland Mechanical Equipment SAP List from September 25, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Light Equipment in the security estimate and added the Light Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mechanical Equipment.
Medium Equipment – Net change using SAP List	-100	-85	$4,261.34	$4,276.14	-$400,300	-$363,500	ARKTIS has adopted the Baffinland Mechanical Equipment SAP List from September 25, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Medium Equipment in the security estimate and added the Medium Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mechanical Equipment. **ARKTIS notes that BIMC and ARKTIS have previously differed on classification of Medium and Heavy Equipment, resulting in the large difference in reclamation cost here.**
Heavy Equipment – Net change using SAP List	-29	-56	$41,205.45	$41,937.03	-$1,195,000	-$2,348,500	ARKTIS has adopted the Baffinland Mechanical Equipment SAP List from September 25, 2015, as the full list of BIMC owned equipment on site. Therefore ARKTIS removed all Heavy Equipment in the security estimate and added the Heavy Equipment in the SAP List, as classified by BIMC. ARKTIS has yet to fully verify BIMC's classification of Light, Medium and Heavy Mechanical Equipment.

							ARKTIS notes that BIMC and ARKTIS have previously differed on classification of Medium and Heavy Equipment, resulting in the large difference in reclamation cost here.
				SUB-TOTAL DIRECT COSTS	-$1,755,700	-$2,730,700	
				DIFFERENCE	$975,000		

3.7 Contaminated Soil

Table 8 provides a comparison of ARKTIS' and BIMC's estimated Direct Costs associated with excavating contaminated soil. ARKTIS has added a line item for the contaminated soil at the Mine Site QL Quonset, as described in the 2015 Audit Report, the Anmar Workshop, and the Milne Port Fuel Bladder Farm. ARKTIS has estimated quantities of contaminated soil using the same method outlined in the QIA 2014 Comprehensive Security Estimate; assume 50% of the soil, to a depth of 0.5 m, within the footprint of the contaminated infrastructure requires removal. BIMC does not have a reclamation activity for excavating contaminated soil, nor does the BIMC unit cost for Contaminated Soil Treatment include excavating and hauling soil to the landfarm.**Error! Bookmark not defined.**

It is ARKTIS' position that contaminated soil requires excavation and hauling to the landfarm prior to treatment.

Table 8. Comparison of Direct Costs associated with Contaminated Soil (Excavate).

Item	Quantity (m^3)		Unit Cost		Direct Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Mine Site QL Quonset	0	19	$0	$30.79	$0	$600	ARKTIS has added a line item for the contaminated soil at the Mine Site QL Quonset. As described in the 2015 Audit Report, the QL Quonset was moved to the new aerodrome, however the soil in the previous footprint does not meet the appropriate reclamation criteria. **It is ARKTIS' position that a line item for excavating and hauling contaminated soil at the former location of the Mine Site QL Quonset be added to the security estimate.**
Anmar Workshop	0	334	$0	$30.79	$0	$10,300	During the September 2015 Inspection Report, ARKTIS noted that the building material had be packaged into sea cans for shipment offsite, and only the liner and potentially contaminated soil remained in place. ARKTIS has added a line item for the contaminated soil at the now burned down Anmar Workshop at Milne Port. The volume of contaminated soil is from Qikiqtaaluk Environmental's assessment.[25] **It is ARKTIS' position that a line item for excavating and hauling contaminated soil at the former location of the Anmar Workshop be added to the security estimate.**
Milne Port Fuel Bladder Farm	0	4,621	$0	$3.41	$0	$142,300	BIMC submitted a reclamation report for the Milne Port Fuel Bladder Farm as part of the 2014 Annual Report. The reclamation report was reviewed as part of the 2015 Audit,[11] which found that the soil in the footprint does not meet

[25] Qikiqtaaluk Environmental (2015) Environmental Characterization of Soils, Anmar Maintenance Shop – Milne Inlet [Preliminary]. June 23, 2015.

							the appropriate reclamation criteria; BIMC used CCME industrial guidelines for petroleum hydrocarbons, where the QIA's position is that CCME agricultural guidelines should be met. **It is ARKTIS' position that a line item for excavating and hauling contaminated soil underneath the former liner at the Milne Port Fuel Bladder Farm be added to the security estimate.**
SUB-TOTAL DIRECT COSTS					$0	$153,200	
DIFFERENCE					-$153,200		

4.0 INDIRECT COSTS ANALYSIS

The following sections describe in detail, by reclamation activity, changes to Indirect Costs resulting from the 2015 Annual Security Review (ASR). A summary of Indirect Costs can be found in Table 13. An itemized list of Indirect Costs added to the reclamation security estimate is provided in Appendix A, while Appendix B provides an itemized list of Indirect Costs removed from the reclamation security estimate.

4.1 Mobilization and Demobilization

It is ARKTIS' opinion that 3rd Party Equipment at the Project cannot be landfilled in a reclamation scenario as it is not the property of BIMC. Previously, ARKTIS has not included this costing in the security estimates, while BIMC has lumped removal of 3rd Party Equipment in with the Indirect Costs associated with mobilization and demobilization of 3rd Party Equipment for reclamation (equal to 10% of all Direct Costs).**Error! Bookmark not defined.** With the adoption of BIMC's Mobile Equipment and Fixed Plant Equipment SAP Lists, and identification of BIMC versus 3rd Party Equipment, ARKTIS has applied the unit costs, summarized below, for removal of 3rd Party Equipment in a reclamation scenario ().

4.1.1 Mobile Equipment (3rd Party Owned)

Unit costs for backhauling 3rd Party Owned light, medium, and heavy mobile equipment were derived from the cost to haul, load, and ship the equipment offsite. The resulting unit costs were calculated to be **$2,801.52** per unit, **$8,206.97** per unit, and **$15,984.36** per unit, for light, medium, and heavy mobile equipment, respectively. Detailed calculations of these unit costs can be found in Appendix D.

The unit costs differ from disposal of BIMC owned equipment onsite, in that backhauling equipment does not require decontamination and disassembly, nor does it contribute to the fill application cost associated with the landfill (See Section 3.1), however it does include a cost for shipping. The shipping cost is based on the average volume of each class of mobile equipment (light, medium, or heavy) as calculation in the 2014 QIA Comprehensive Security Estimate.[4]

During the November 30, 2015, teleconference call between BIMC and the QIA, BIMC stated they were uncertain if the equipment being brought to site in 2016 would be BIMC or 3rd Party Owned. Therefore ARKTIS has applied the more conservative unit costing for backhauling 3rd Party Owned Equipment.

Table 9. Comparison of Indirect Costs associated with Mobilization and Demobilization of 3rd Party Owned Equipment.

Item	Quantity (No.)		Unit Cost		Indirect Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Light Mobile Equipment (3rd Party) – 2016 Work Plan	0	34	$0	$2,801.52	$0	$95,300	It is ARKTIS' opinion that 3rd Party Equipment at the Project cannot be landfilled in a reclamation scenario as it is not the property of BIMC. BIMC has included the same number of each equipment type in their estimate, however, BIMC has applied a unit cost to landfill the equipment (Table 6). Furthermore, BIMC believes the indirect cost for mobilizing and demobilizing 3rd Party Equipment for reclamation (10% of Direct Costs) should also be sufficient to also cover the demobilization of 3rd Party equipment already present at the time of closure.
Medium Mobile Equipment (3rd Party) – 2016 Work Plan	0	28	$0	$8,206.97	$0	$229,800	It is ARKTIS' opinion that 3rd Party Equipment at the Project cannot be landfilled in a reclamation scenario as it is not the property of BIMC. BIMC has included the same number of each equipment type in their estimate, however, BIMC has applied a unit cost to landfill the equipment (Table 6). Furthermore, BIMC believes the indirect cost for mobilizing and demobilizing 3rd Party Equipment for reclamation (10% of Direct Costs) should also be sufficient to also cover the demobilization of 3rd Party equipment already present at the time of closure.
Heavy Mobile Equipment (3rd Party) – 2016 Work Plan	0	25	$0	$15,984.36	$0	$399,600	It is ARKTIS' opinion that 3rd Party Equipment at the Project cannot be landfilled in a reclamation scenario as it is not the property of BIMC. BIMC has included the same number of each equipment type in their estimate, however, BIMC has applied a unit cost to landfill the equipment (Table 6). Furthermore, BIMC believes the indirect cost for mobilizing and demobilizing 3rd Party Equipment for reclamation (10% of Direct Costs) should also

Item	Quantity (No.)		Unit Cost		Indirect Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
							be sufficient to also cover the demobilization of 3rd Party equipment already present at the time of closure.
SUB-TOTAL INDIRECT COSTS					$0.00	$724,700	BIMC has calculated $139,300 to dispose of the equipment onsite in a reclamation scenario (Table 6).
DIFFERENCE					-$724,700		

4.2 Offsite Fuel Disposal

Table 10 provides a detailed comparison of ARKTIS' and BIMC's estimated Indirect Costs associated with the off-site disposal of fuel. In the 2016 Work Plan (p.7 Table 3-1), BIMC states that two additional 50,000 L fuel tanks will be added to the Mary River Site. ARKTIS assumes 50% of the total additional fuel storage remains on site under a reclamation scenario, in line with previous security estimates.

4.3 Offsite Disposal of Ammonium Nitrate and Explosives

Table 11 provides a comparison of ARKTIS' and BIMC's estimated Indirect Costs associated with the off-site disposal of ammonium nitrate and explosives. During the 2015 Audit, BIMC provided an updated inventory for ammonium nitrate and explosives, as of the end of July 2015 (Appendix C). The inventory indicated that significantly more ammonium nitrate and explosives were on site (additional 1,600,000 kg), then what is presently covered in the security estimate (603,000 kg).

Table 10. Comparison of Indirect Costs associated with Off-site Disposal of Fuel.

Item	Quantity (L)		Unit Cost		Indirect Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Off-site Disposal of Fuel	0	50,000	$0.10	$0.10	$0.00	$5,000	BIMC did not include any additional volume of fuel for off-site disposal in the 2016 ASR, despite identifying four additional 50,000 L tanks to be added under the 2016 Work Plan. BIMC's position is that the volume of fuel in these tanks is insignificant when compared to the Bulk Fuel Storage at Milne Port. ARKTIS assumes 50% of the total additional fuel storage remains on site under a reclamation scenario, in line with previous security estimates. Therefore, ARKTIS applied a $0.10/L cost to backhaul an additional 50,000 L of fuel.
SUB-TOTAL INDIRECT COSTS					$0.00	$5,000	
DIFFERENCE					-$5,000		

Table 11. Comparison of Indirect Costs associated with Off-site Disposal of Ammonium Nitrate & Explosives.

Item	Quantity (kg)		Unit Cost		Indirect Cost		Remarks
	BIMC	QIA	BIMC	QIA	BIMC	QIA	
Ammonium Nitrate & Explosives - 2016	0	1,630,409	$2.37	$2.37	$0	$3,864,100	During the 2015 Audit, BIMC provided an updated inventory for ammonium nitrate and explosives, as of the end of July 2015 (Appendix C). BIMC is verifying the quantities that were provided to the QIA during the Audit, and will update the reclamation security based on those results.[13]
SUB-TOTAL INDIRECT COSTS					$0.00	$3,864,100	
DIFFERENCE					-$3,864,100		

4.4 Short Term Care and Maintenance, Closure Monitoring and Reporting

ARKTIS has adopted the reclamation cost proposed by BIMC for Short Term Care & Maintenance, Closure Monitoring & Reporting for the present. ARKTIS notes that at this time, the updated Interim Closure and Reclamation Plan (ICRP) is pending submission to QIA from BIMC, and therefore has not been approved by the QIA.[26] ARKTIS will review the reclamation cost associated with Short Term Care & Maintenance, Closure Monitoring & Reporting after full acceptance of the ICRP. Thus, costing for Care and Maintenance and Closure Monitoring and Reporting will be revised in future security estimates.

4.5 Inflation

The unit costs used by both ARKTIS and BIMC are based on rates and costs derived in 2014 and therefore representative of 2014 Canadian dollars. BIMC has not applied an adjustment for inflation and change in market conditions between 2015 and 2014.

Rather than recalculating unit costs annually, unless otherwise warranted, ARKTIS applied an inflation adjustment to account for rising unit costs as per Section 4.8 of the CPL.[2]

The expected inflation adjustment for the Baffin region (Nunavut) is determined using inflation data reported monthly by Statistics Canada.[27]

The base year for estimating the inflation increase is October 2014, the year and month the unit costs were calculated. The monthly Commercial Price Index for Iqaluit, Nunavut is published in the Statistics Canada table, "Table 10: The All-items Consumer Price Index, provinces, Whitehorse, Yellowknife and Iqaluit, 1 not seasonally adjusted, historical data." In October 2014, the inflation reading was 118.4, which represents the *base year for inflation adjustment*, in the equation below.

The current Consumer Price Index for the year and month in which the Annual Security Review is being completed, is then taken from the same Statistics Canada table; ARKTIS recommends using October to align with the month when the unit costs were initially calculated. The difference between the current year Consumer Price Index (121.1 for October 2015) and the base year Consumer Price Index (118.4 for October 2014) for the Iqaluit, Nunavut will determine the *Inflation adjustment multiplier* that will be applied to all Rent and compensation amounts.

The mathematical formula used to determine the *Inflation Adjustment multiplier* is as follows:

$$Inflation\ adjustment\ multiplier = \frac{(Inflation\ reading\ for\ current\ year) - (Base\ \ year\ for\ inflation\ adjustment)}{100} + 1$$

ARKTIS recommends that an adjustment for inflation of 1.027 be applied to the final security estimates.

5.0 SUMMARY AND RECOMMENDATIONS

A summary of the changes to Direct Costs and Indirect Costs as part of the 2016 ASR is provided in Table 12 and Table 13, respectively. ARKTIS recommends that the reclamation security held by QIA (currently

[26] QIA's October 23, 2015, letter to BIMC titled, "Baffinland Iron Mines Corporation's Interim Mine Closure and Reclamation Plan – Conditional Approval."

[27] Statistics Canada (2015) The Consumer Price Index (62-001-X). Vol. 94, No. 10. November 20, 2015.

$47,517,500[28] pursuant to Q13C301 Commercial Lease) for IOL be adjusted by an increase of **$3,381,000**, from the revised 2015 estimate of **$49,831,000,**[6] to an aggregate reclamation security of **$53,212,000** for all activities up to the end of 2016 (Table 14); this excludes the activities associated with the Type 'B' Exploration Water License (2BE-MRY1421). ARKTIS recommends that an inflation adjustment multiplier of 1.027 be applied bringing the total reclamation security to **$54,649,000**.

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[28] QIA November 5, 2015, letter to the NWB titled, "Notice to the Parties NWB Request For Comment on the Timing and Process for the Annual Security Review for 2015-2016 under Part C and Schedule C of Type 'A' Water Licence 2AM-MRY1325 Mary River Project."

Table 12. Summary of Direct Costs for the complete 2016 Annual Security Review.

Direct Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Direct Cost	Direct Cost	Direct Cost
Site Works	Fill Application	-5,908	m^2	-3,457	m^2	$44.37	$43.31	-$262,100	-$149,700	-$112,400 [a,b]
	Grade and Re-Contour	161,082	m^2	780,804	m^2	$1.81	$1.93	$291,600	$1,509,700	-$1,218,100 [c]
	Grade and Re-Contour of Building Footprints	-	-	-	-	-	-	-	-	-
	Liner Removal	-30,563	m^2	-1,333	m^2	$3.50	$3.41	-$107,000	-$4,500	-$102,500 [d]
	Grade and Re-contour Significant Disturbed Areas	73,838	m^2	179,187	m^2	$2.72	$2.90	$200,800	$519,600	-$318,800 [e]
	Culvert Removal	-	-	-	-	-	-	-	-	-
	Bridge Removal	-	-	-	-	-	-	-	-	-
	Timber Cribbing	-2,786	m^2	-7,686	m^2	$20.78	$20.60	-$57,900	-$158,300	$100,400 [a]
	Precast Foundations	-2,267	m^2	-4,682	m^2	$38.47	$36.54	-$87,200	-$171,100	$83,900 [a]
	Slab on Grade	-1,041	m^2	-3,380	m^2	$33.11	$28.16	-$34,500	-$95,200	$60,700 [a]
Mobile Equipment	Light Mobile Equipment	44	ea.	11	ea.	$941.09	$938.16	$41,400	$10,300	$31,100 [f]
	Medium Mobile Equipment	30	ea.	2	ea.	$1,494.13	$1,559.26	$44,800	$3,100	$41,700 [f]
	Heavy Mobile Equipment	98	ea.	73	ea.	$2,618.87	$2,251.31	$256,600	$164,300	$92,300 [f]
Buildings (Camp)	Modular Buildings	-3,107	m^2	-596	m^2	$143.42	$184.43	-$445,600	-$109,900	-$335,700 [a]
	Fold Away Building	-1,895	m^2	-4,682	m^2	$142.41	$143.71	-$269,900	-$672,900	$403,000 [a]

Direct Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Direct Cost	Direct Cost	Direct Cost
	Soft Walled Building (Tent)	-	-	-	-	-	-	-	-	-
	ISO Shipping Containers	-	-	-	-	-	-	-	-	-
	Other Buildings	-	-	-	-	-	-	-	-	-
Buildings (Not Contaminated)	Modular Buildings	-8,963	m^2	-7,686	m^2	$59.38	$61.47	-$532,200	-$472,500	-$59,700 [a]
	Fold Away Building	-	-	-	-	-	-	-	-	-
	Soft Walled Building (Tent)	-	-	-	-	-	-	-	-	-
	Temporary Construction Warehouses and Office Allowances	-	-	-	-	-	-	-	-	-
	ISO Shipping Containers	-	-	-	-	-	-	-	-	-
	Other Buildings	0	m^2	283	m^2	-	$41.35	$0	$11,700	-$11,700 [g]
Bulks	Piping	-	-	-	-	-	-	-	-	-
	Cable	-	-	-	-	-	-	-	-	-
Packaged Facilities	Incinerator	-	-	-	-	-	-	-	-	-
	Potable Water	-1	ea.	-1	ea.	$9,975.93	$9,422.75	-$10,000	-$9,400	-$600 [a]
	Sewage Treatment Plant	-1	ea.	-1	ea.	$11,035.58	$10,772.79	-$11,000	-$10,800	-$200 [a]
	Truck Wash Facility	-	-	-	-	-	-	-	-	-
Mechanical Equipment	Light Equipment	-81	ea.	-81	ea.	$1,980.80	$1,784.11	-$160,400	-$144,500	-$15,900 [h]
	Medium Equipment	-100	ea.	-85	ea.	$4,261.34	$4,276.14	-$426,100	-$363,500	-$62,600 [h]

Direct Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Direct Cost	Direct Cost	Direct Cost
	Heavy Equipment	-29	ea.	-56	ea.	$41,205.45	$41,937.03	-$1,195,000	-$2,348,500	$1,153,500 [h]
	Light Tanks	-7	ea.	-	-	-	-	-	-	-
	Medium Tanks	-3	ea.	-	-	-	-	-	-	-
	Light Diesel Tanks	1	ea.	-	-	-	-	-	-	-
	Medium Mobile Diesel Tanks	1	ea.	2	ea.	$10,481.00	$9,141.50	$10,500	$18,300	-$7,800 [h]
	Medium Diesel Tanks	-	-	-	-	-	-	-	-	-
	Large Diesel Tanks	-	-	-	-	-	-	-	-	-
	Largest Diesel Tanks	-	-	-	-	-	-	-	-	-
	Miscellaneous Items	-13	ea.	0	ea.	$529.83	$80.21	-$6,900	$0	-$6,900 [h]
	Reclaim Conveyor	-	-	-	-	-	-	-	-	-
	Consumables	550	beds	550	beds	$700.80	$700.80	$385,400	$385,400	$0 [i]
Not Included by BIMC	Contaminated Soil (Excavate)	0	m^2	4,973	m^3	$0.00	$30.79	$0	$153,100	-$153,100 [j]
	Airstrip Lighting	-	-	-	-	-	-	-	-	-
	Camp Mats (Size 1)	-	-	-	-	-	-	-	-	-
	Camp Mats (Size 2)	-	-	-	-	-	-	-	-	-
	Container Water Crossings	-	-	-	-	-	-	-	-	-
	Sea Containers	-	-	-	-	-	-	-	-	-

Direct Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Direct Cost	Direct Cost	Direct Cost
							SUB-TOTAL DIRECT COSTS	-$2,375,000	-$1,935,000	-$440,000

Notes:

[a] Difference carried over from 2015 Addendum.

[b] ARKTIS has not included 87 pieces of 3rd party owned mobile equipment.

[c] Difference in areas for Tote Road Unidentified Disturbed Areas, 2016 Tote Road Upgrades, and Tote Road Large Road Cuts, as well as D1Q1 quarry.

[d] Difference in areas for Waste Storage Areas. BIMC has agreed to adjust their quantities. BIMC has agreed to add quantities for 2 Refueling Modules, and the Anmar Workshop.

[e] Difference in areas for Tote Road High Priority Unidentified Disturbed Areas.

[f] Difference in opinion of reclamation activity for 3rd party owned equipment.

[g] BIMC has labelled these buildings as a mix of Modular and Fold Away.

[h] Difference result of BIMC removing all Fixed Equipment from previous securities and updating based on BIMC's new Fixed Equipment SAP list from September 25 2015.

[I] ARKTIS has adopted BIMC's proposed unit rate and quantity for consumables.

[j] BIMC does not have a unit cost for excavating and hauling contaminated soil. Contaminated soil excavation for the Milne Port Fuel Bladder Farm was not included in the security estimate.

Table 13. Summary of Indirect Costs for the complete 2016 Annual Security Review.

Indirect Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Indirect Cost	Indirect Cost	Indirect Cost
Off-site Disposal	Waste & Material	-	-	-	-	-	-	-	-	-
	Fuel	0	L	50,000	L	$0.10	$0.10	$0	$5,000	-$5,000 [a,b]
	Ammonium Nitrate & Explosives	0	kg	1,630,409	kg	$2.37	$2.37	$0	$3,864,100	-$3,864,100 [a,c]
Soil	Contaminated Soil Treatment	334	m^3	372	m^3	$14.78	$13.45	$4,900	$5,000	-$100 [a,d]
Mob. & Demob.	Mobilization of Workers Required for Reclamation	-	-	-	-	-	-	-$41,000	-$227,327	$186,327
	Worker Accommodation & Camp Operations	-	-	-	-	-	-	-$224,000	-$704,700	$480,700
	Mobilization and Demobilization of Equipment and Materials by Sealift	-	-	-	-	10.0%	10.0%	-$229,000	-$193,500	-$35,500
	Backhaul Light Mobile Equipment (3rd party)	0	ea.		ea.	$0.00	$2,801.52	$0	$95,252	-$95,252 [f]
	Backhaul Medium Mobile Equipment (3rd party)	0	ea.		ea.	$0.00	$8,206.97	$0	$229,795	-$229,795 [f]
	Backhaul Heavy Mobile Equipment (3rd party)	0	ea.		ea.	$0.00	$21,314.42	$0	$399,609	-$399,609 [f]

Indirect Costs										
Area	Item	BIMC		QIA		BIMC	QIA	BIMC	QIA	Difference
		Qty	Unit	Qty	Unit	Unit Cost	Unit Cost	Indirect Cost	Indirect Cost	Indirect Cost
	Fuel for Reclamation Mobile Equipment	0	L	-263,566	L	$0.40	$0.38	$41,000	-$137,069	$178,069
Monitoring and Reporting	Geotechnical Inspections	-	-	-	-	-	-	-$150,000	-$316,200	$166,200 [g]
	Project Environmental Site Assessment	-	-	-	-	-	-	-$90,000	-$71,580	-$18,420 [g]
	Closure & Post Closure Monitoring	-	-	-	-	-	-	-$851,000	-$851,000	$0 [g]
	Short Term Care & Maintenance, Closure Monitoring & Reporting	-	-	-	-	-	-	$3,766,000	$3,766,000	$0 [a]
Other	Engineering Fees					3.9%	3.9%	-$89,000	-$75,465	-$13,535
	Supervision, Project Management & Contract Administration					9.4%	9.4%	-$216,000	-$181,890	-$34,110
	Contingency					12.5%	15.0%	-$339,000	-$290,250	-$48,750
							SUB-TOTAL INDIRECT COSTS	$1,582,900	$5,316,000	-$3,733,100

Notes:

[a] Not impacted by Direct Costs.
[b] Quantity updated based on 50% of increased fuel storage capacity.
[c] Quantity updated based on inventory provided by BIMC during 2015 Audit.
[d] Contaminated soil treatment for the Milne Port Fuel Bladder Farm has already been included in the security estimate.
[e] Impacted by Direct Costs, particularly Grade & Recontour and Heavy Equipment.
[f] Difference in opinion of reclamation activity for 3rd party owned equipment. Additionally BIMC's opinion is that the Indirect Cost for Mobilization and Demobilization of Equipment and Materials by Sealift would also cover 3rd party equipment already at site.
[g] Difference carried over from 2014.

Table 14. Summary of Total Costs for the complete 2016 Annual Security Review.

Total Costs			
	BIMC [a]	QIA	Difference
2016 ASR SUB-TOTAL DIRECT COSTS	-$2,375,000	-$1,935,000	-$440,000
2016 ASR SUB-TOTAL INDIRECT COSTS	$1,582,900	$5,316,000	-$3,733,100
2016 ASR TOTAL ADJUSTMENT	-$792,100	$3,381,000	-$4,173,100
2015 TOTAL RECLAMATION SECURITY ESTIMATE	$45,089,000	$49,831,000	-$4,742,000
2016 TOTAL RECLAMATION SECURITY ESTIMATE	$44,297,000	$53,212,000	-$8,915,000
INLFATION ADJUSTED 2016 TOTAL RECLAMATION SECURITY ESTIMATE [b]	$44,297,000	$54,649,000	-$10,352,000

Notes:

[a] BIMC values may differ slightly from BIMC's 2016 Marginal Closure and Reclamation Financial Security Estimate due to rounding.

[b] ARKTIS as applied an inflation adjustment multiplier of 1.027 as described in Section 4.5. BIMC has not applied an inflation adjustment.

6.0 CLOSURE

This report has been prepared exclusively for the use of the QIA for the specific application described within this report. The details provided in this report are for general information purposes only. The information and recommendations contained in this report should not be used for any other purpose, at another location, or by any other parties. Any use of, or reliance on this report by any third party is at that party's sole risk. ARKTIS assumes no responsibly for inappropriate use of the contents of this report, and disclaims all liability arising from negligence or otherwise. General terms and conditions are provided in Appendix E.

ARKTIS SOLUTIONS INC.

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APPENDIX A – DETAILED RECLAMATION SECURITY RESULTS, LINE ITEMS ADDED

Table A 1. Detailed Reclamation Security Results, Direct Costs Line Items Added.

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Fuel Bladder Farm (Contaminated Soil Below Liner)	1	Bermed/Lined Areas	CONTAMINATED SOIL REMOVAL	Milne Port	18,482.00	4,620.50	$30.79	/m3	$142,265.20
QL Quonset Maintenance (Soil)	1	Buildings	CONTAMINATED SOIL REMOVAL	Mary River	75.00	18.75	$30.79	/m3	$577.31
Anmar Workshop (Soil)	1	Buildings	CONTAMINATED SOIL REMOVAL	Milne Port	1,670.00	334.00	$30.79	/m3	$10,283.86
Electrical Building	1	Foundation	DRILL SLAB	Mary River	20.00	60.00	$28.16	/m2	$563.20
Electrical Building	1	Foundation	DRILL SLAB	Milne Port	56.00	168.00	$28.16	/m2	$1,576.96
Landfill (Light Mobile Equipment)	215	Landfill	FILL APPLICATION	N/A	446.56	4,465.55	$43.31	/m2	$19,340.30
Landfill (Medium Mobile Equipment)	105	Landfill	FILL APPLICATION	N/A	748.34	7,483.35	$43.31	/m2	$32,410.39
Landfill (Heavy Mobile Equipment)	274	Landfill	FILL APPLICATION	N/A	3,802.57	38,025.72	$43.31	/m2	$164,689.39
Landfill (Light Equipment)	95	Landfill	FILL APPLICATION	N/A	19.29	192.85	$43.31	/m2	$835.23
Landfill (Medium Equipment)	29	Landfill	FILL APPLICATION	N/A	16.50	165.01	$43.31	/m2	$714.66
Landfill (Heavy Equipment)	6	Landfill	FILL APPLICATION	N/A	49.33	493.32	$43.31	/m2	$2,136.57
Landfill (Buildings)		Landfill	FILL APPLICATION	N/A	53.85	538.50	$43.31	/m2	$2,332.24
Landfill (Medium Mobile Fuel Tanks)	2	Landfill	FILL APPLICATION	N/A	5.00	50.00	$43.31	/m2	$216.55
Unidentified Disturbed Areas	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	896,740.00		$1.93	/m2	$1,730,708.20
Tote Road Old Alignments	1	Road	GRADE AND RE-CONTOUR	Tote Road	266,500.00		$1.93	/m2	$514,345.00
Tote Road Large Road Cuts	1	Road	GRADE AND RE-CONTOUR	Tote Road	18,000.00		$1.93	/m2	$34,740.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Deposit #1 Open Pit	1	Open Pit	GRADE AND RE-CONTOUR	Mary River	269,450.00		$1.93	/m2	$520,038.50
Q1 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Milne Port	64,200.00		$1.93	/m2	$123,906.00
QMR2 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Mary River	258,580.00		$1.93	/m2	$499,059.40
KM 104 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Mary River	56,500.00		$1.93	/m2	$109,045.00
Sedimentation Ponds at Camp Lake	1	Areas	GRADE AND RE-CONTOUR	Mary River	112.00		$1.93	/m2	$216.16
Contractor Laydown	1	Areas	GRADE AND RE-CONTOUR	Mary River	11,250.00		$1.93	/m2	$21,712.50
Q9 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	15,166.00		$1.93	/m2	$29,270.38
Descritpion]]	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	6,350.00		$1.93	/m2	$12,255.50
Q14 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	13,440.00		$1.93	/m2	$25,939.20
Q15 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	10,680.00		$1.93	/m2	$20,612.40
Q16A Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	11,240.00		$1.93	/m2	$21,693.20
P5 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	4,600.00		$1.93	/m2	$8,878.00
P6 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	7,500.00		$1.93	/m2	$14,475.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
P7 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	8,100.00		$1.93	/m2	$15,633.00
P8 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	8,385.00		$1.93	/m2	$16,183.05
P10 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	19,344.00		$1.93	/m2	$37,333.92
P13 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	8,456.00		$1.93	/m2	$16,320.08
P14 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	3,160.00		$1.93	/m2	$6,098.80
P15 Borrow Source	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	3,300.00		$1.93	/m2	$6,369.00
KM 8 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 13 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 49 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 58 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 65 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 73 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
KM 74 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
KM 77 Tote Road Upgrade	1	Areas	GRADE AND RE-CONTOUR	Tote Road	5,000.00		$1.93	/m2	$9,650.00
2015 Sealift Laydown Area	1	Areas	GRADE AND RE-CONTOUR	Milne Port	72,000.00	-	$1.93	/m2	$138,960.00
Unidentified High Priority Disturbed Areas	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR SIGNIFICANT DISTURBED AREAS	Tote Road	158,031.00	-	$2.90	/m2	$458,289.90
Hazardous Waste Berm MS-HWB-1	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	754.00	-	$5.34	/m2	$4,026.36
Hazardous Waste Berm MS-HWB-2	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	1,298.00		$5.34	/m2	$6,931.32
Hazardous Waste Berm MS-HWB-3	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	600.00		$5.34	/m2	$3,204.00
Hazardous Waste Berm MS-HWB-4	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	649.00		$5.34	/m2	$3,465.66
Hazardous Waste Berm MS-HWB-5	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	347.00		$5.34	/m2	$1,852.98
Hazardous Waste Berm MS-HWB-6	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	550.00		$5.34	/m2	$2,937.00
PWSP 1 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	3,720.00		$5.34	/m2	$19,864.80
PWSP 2 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	6,967.00		$5.34	/m2	$37,203.78

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
PWSP 3 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	6,511.00		$5.34	/m2	$34,768.74
Contaminated Snow Dump (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	3,189.00		$5.34	/m2	$17,029.26
Landfarm (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	12,933.00		$5.34	/m2	$69,062.22
Hazardous Waste Berm MP-HWB-2	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	272.00		$5.34	/m2	$1,452.48
Hazardous Waste Berm MP-HWB-3	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	678.00		$5.34	/m2	$3,620.52
Hazardous Waste Berm MP-HWB-4	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	597.00		$5.34	/m2	$3,187.98
Hazardous Waste Berm MP-HWB-5	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	652.00		$5.34	/m2	$3,481.68
PWSP 1 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	4,180.00		$5.34	/m2	$22,321.20
Hazardous Waste Berm MP-HWB-1	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	2,000.00		$5.34	/m2	$10,680.00
Hazardous Waste Berm MP-HWB-6	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	34.00		$5.34	/m2	$181.56
Temporary Waste Rock Stockpile Pond (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	900.00		$5.34	/m2	$4,806.00
Refueling Module	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	2,000.00		$5.34	/m2	$10,680.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Refueling Module	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Unknown	2,000.00		$5.34	/m2	$10,680.00
PWSP #3	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	4,260.00		$5.34	/m2	$22,748.40
Hazardous Waste Berm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	156.00		$5.34	/m2	$833.04
Hazardous Waste Berm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	156.00		$5.34	/m2	$833.04
Hazardous Waste Berm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	156.00		$5.34	/m2	$833.04
Hazardous Waste Berm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	952.00		$5.34	/m2	$5,083.68
Weatherhaven Gen Set Fuel Bladder Farm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	900.00		$5.34	/m2	$4,806.00
Anmar Workshop	1	Buildings	LINER REMOVAL	Milne Port	1,670.00		$3.41	/m2	$5,694.70
Core Shack 12x6	1	Buildings	OTHER BUILDING	Mary River	72.00	216.00	$41.35	/m2	$2,977.20
Core Shack 5x5	1	Buildings	OTHER BUILDING	Mary River	25.00	75.00	$41.35	/m2	$1,033.75
Core Shack 6x6	1	Buildings	OTHER BUILDING	Mary River	36.00	108.00	$41.35	/m2	$1,488.60
Core Shack 9X6	1	Buildings	OTHER BUILDING	Mary River	54.00	162.00	$41.35	/m2	$2,232.90
Electrical Office	1	Buildings	OTHER BUILDING	Mary River	20.00	60.00	$41.35	/m2	$827.00
Electrical Building	1	Buildings	OTHER BUILDING	Mary River	20.00	60.00	$41.35	/m2	$827.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Electrical Building	1	Buildings	OTHER BUILDING	Milne Port	56.00	168.00	$41.35	/m2	$2,315.60
Heavy Equipment	6	Equipment	REMOVE HEAVY EQUIPMENT	N/A			$41,937.03	EA.	$251,622.18
Heavy Mobile Equipment	274	Equipment	REMOVE HEAVY MOBILE EQUIPMENT	N/A			$2,251.31	EA.	$616,858.94
Light Equipment	95	Equipment	REMOVE LIGHT EQUIPMENT	N/A			$1,784.11	EA.	$169,490.44
Light Mobile Equipment	215	Equipment	REMOVE LIGHT MOBILE EQUIPMENT	N/A			$938.16	EA.	$201,705.03
Medium Equipment	29	Equipment	REMOVE MEDIUM EQUIPMENT	N/A			$4,276.14	EA.	$124,008.16
Medium Mobile Equipment	105	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	N/A			$1,559.26	EA.	$163,722.69
50,000 L Portable Fuel Dispensing Units	2	Fuel Tanks	REMOVE MEDIUM MOBILE FUEL TANKS	Mary River			$9,141.50	EA.	$18,282.99

Table A 2. Detailed Reclamation Security Results, Indirect Costs Line Items Added.

Item Description	# of Items	Type	Reclamation Activities	Volume (m^3) Total	Weight (kg) Total	Unit Rate	Unit	Reclamation Cost
Waste and Material	1	Off Site Disposal	WASTE AND MATERIALS	-	-	-	-	
50,000 L Diesel Fuel	0.5	Fuel	FUEL BACKHAUL	25.00	-	$100.00	/m^3	$2,500.00
50,000 L Diesel Fuel	0.5	Fuel	FUEL BACKHAUL	25.00	-	$100.00	/m^3	$2,500.00
Ammonium Nitrate	1	Hazardous	EXPLOSIVES	-	1,525,000.00	$2.37	/kg	$3,614,250.00
Pre-packaged Explosives	1	Hazardous	EXPLOSIVES	-	708,409.00	$2.37	/kg	$1,678,929.33
Light Mobile Equipment (3rd Party)	34	3rd Party Equipment	REMOVE LIGHT MOBILE EQUIPMENT (3rd PARTY)			$2,801.52	EA.	$95,251.82
Medium Mobile Equipment (3rd Party)	28	3rd Party Equipment	REMOVE MEDIUIM MOBILE EQUIPMENT (3rd PARTY)			$8,206.97	EA.	$229,795.20
Heavy Mobile Equipment (3rd Party)	25	3rd Party Equipment	REMOVE HEAVY MOBILE EQUIPMENT (3rd PARTY)			$15,984.36	EA.	$399,609.04
Contaminated Soil Treatment - Mine Site QL Quonset	1	Soil	CONTAMINATED SOIL TREATMENT	37.50	-	$13.45	/m^3	$504.38
Contaminated Soil Treatment - Anmar Workshop	1	Soil	CONTAMINATED SOIL TREATMENT	1,670.00		$13.45	/m^3	$22,461.50
Mobilization of Workers for Reclamation	1	Mobilization and Demobilization	CREW TRANSPORTATION	-	-	-	-	-$243,015.72
Worker Accommodation & Camp Operations	1	Mobilization and Demobilization	CREW ACCOMMODATIONS	-	-	-	-	-$753,300.00
Mobilization and Demobilization of Equipment and Materials by Sealift (10% Direct Costs)	1	Mobilization and Demobilization	RECLAMATION EQUIPMENT	-	-	-	-	-$264,000.00

Item Description	# of Items	Type	Reclamation Activities	Volume (m^3) Total	Weight (kg) Total	Unit Rate	Unit	Reclamation Cost
Fuel for Reclamation Mobile Equipment	1	Mobilization and Demobilization	RECLAMATION FUEL	-427.91	-	$380.00	/m^3	-$162,606.94
Geotechnical Inspections	1	Monitoring and Reporting	POST CLOSURE	-	-	-	-	
Project Environmental Site Assessment	1	Monitoring and Reporting	POST CLOSURE	-	-	-	-	
Closure & Post Closure Monitoring	1	Monitoring and Reporting	POST CLOSURE	-	-	-	-	
Engineering Fees (3.9% Direct Costs)	1	Engineering	ENGINEERING	-	-	-	-	-$102,960.00
Supervision, Project Management & Contract Administration (9.4% Direct Costs)	1	Project Management	PROJECT MANAGEMENT	-	-	-	-	-$248,160.00
Contingency (15% Direct Costs)	1	Contingency	CONTINGENCY	-	-	-	-	-$396,000.00

APPENDIX B – DETAILED RECLAMATION SECURITY RESULTS, LINE ITEMS REMOVED

Table B 1. Detailed Reclamation Security Results, Direct Costs Line Items Removed.

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Ore Haul Truck Workshop Office Building	1	Buildings	DOUBLE MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	267.53	652.32	$61.48	/m2	$16,448.03
Maintenance Building #2 (Slab on Grade)	1	Foundation	DRILL SLAB	Milne Port	557.36	170.00	$28.16	/m2	$15,695.37
Ore Haul Maintenance Building (Slab on Grade)	1	Foundation	DRILL SLAB	Mary River	2,415.24	736.65	$28.16	/m2	$68,013.25
Welding Shop Building #2 (Slab on Grade)	1	Foundation	DRILL SLAB	Milne Port	148.63	45.33	$28.16	/m2	$4,185.43
Welding Shop Building #2 (Slab on Grade)	1	Foundation	DRILL SLAB	Mary River	334.42	102.00	$28.16	/m2	$9,417.22
Landfill (Buildings)	1	Landfill	FILL APPLICATION	N/A	3,767.48	-	$43.31	/m2	$163,169.65
Landfill (Hazardous Waste Liner)	1	Landfill	FILL APPLICATION	N/A	0.01	-	$43.31	/m2	$0.39
Landfill (Heavy Equipment)	1	Landfill	FILL APPLICATION	N/A	65.77	-	$43.31	/m2	$2,848.41
Landfill (Heavy Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	1,142.58	-	$43.31	/m2	$49,485.01
Landfill (Light Equipment)	1	Landfill	FILL APPLICATION	N/A	0.19	-	$43.31	/m2	$8.40
Landfill (Light Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	60.64	-	$43.31	/m2	$2,626.41
Landfill (Medium Equipment)	1	Landfill	FILL APPLICATION	N/A	1.71	-	$43.31	/m2	$73.93
Landfill (Medium Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	138.49	-	$43.31	/m2	$5,998.05
Landfill (Non-Fuel Tanks)	1	Landfill	FILL APPLICATION	N/A	1.91	-	$43.31	/m2	$82.90
Landfill (Potable Water)	1	Landfill	FILL APPLICATION	N/A	1.93	-	$43.31	/m2	$83.39
Landfill (Precast Foundations)	1	Landfill	FILL APPLICATION	N/A	121.73	-	$43.31	/m2	$5,272.04
Landfill (Sewage Treatment Plant)	1	Landfill	FILL APPLICATION	N/A	4.53	-	$43.31	/m2	$196.22
Landfill (Timber Cribbing)	1	Landfill	FILL APPLICATION	N/A	4.31	-	$43.31	/m2	$186.62

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Maintenance Building #2	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Milne Port	557.36	4,246.91	$143.71	/m2	$80,098.76
Ore Haul Maintenance Building	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Mary River	2,415.24	25,764.56	$143.71	/m2	$347,094.62
Ore Haul Truck Wash Building	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Mary River	483.05	3,680.65	$143.71	/m2	$69,418.92
Site Services Unheated Warehouse	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Milne Port	371.58	2,831.27	$143.71	/m2	$53,399.17
Truck Wash (Repurposed Warehouse)	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Milne Port	371.58	2,831.27	$143.71	/m2	$53,399.17
Welding Shop Building #2	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Milne Port	148.63	1,132.51	$143.71	/m2	$21,359.67
Welding Shop Building #2	1	Buildings	FOLD-AWAY BUILDING TEARDOWN - CONTAMINATED	Mary River	334.42	2,548.14	$143.71	/m2	$48,059.25
QMR2 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Mary River	258,580.00	200,000.00	$1.93	/m2	$499,059.40
Unidentified Disturbed Areas	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	948,730.00	-	$1.93	/m2	$1,831,048.90
Q1 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	64,200.00	690,000.00	$1.93	/m2	$123,906.00
Mary River Mine Site Landfarm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR	Mary River	14,083.00	-	$1.93	/m2	$27,180.19
Deposit #1 Open Pit	1	Open Pit	GRADE AND RE-CONTOUR	Mary River	55,000.00	-	$1.93	/m2	$106,150.00
Q1 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	107,000.00	-	$1.93	/m2	$206,510.00
QMR2 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	0.00	-	$1.93	/m2	$0.00
2015 Sealift Laydown Area	1	Areas	GRADE AND RE-CONTOUR	Milne Port	72,000.00	-	$1.93	/m2	$138,960.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Accommodation Infrastructure Pad Extension (East Side)	1	Areas	GRADE AND RE-CONTOUR	Mary River	2,700.00	-	$1.93	/m2	$5,211.00
Accommodation Infrastructure Pad Extension (West Side)	1	Areas	GRADE AND RE-CONTOUR	Mary River	9,000.00	-	$1.93	/m2	$17,370.00
Additional Site Roads at Mine Site	1	Road	GRADE AND RE-CONTOUR	Mary River	1,120.00	-	$1.93	/m2	$2,161.60
Infill b/w Service and Utility Pads	1	Areas	GRADE AND RE-CONTOUR	Mary River	20,800.00	-	$1.93	/m2	$40,144.00
Q1 Quarry	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR	Tote Road	31,000.00	-	$1.93	/m2	$59,830.00
Utilities Pad Extension (North West)	1	Areas	GRADE AND RE-CONTOUR	Mary River	3,500.00	-	$1.93	/m2	$6,755.00
Utilities Pad Extension (South West)	1	Areas	GRADE AND RE-CONTOUR	Mary River	1,800.00	-	$1.93	/m2	$3,474.00
Unidentified High Priority Disturbed Areas	1	Quarry/Borrow Area	GRADE AND RE-CONTOUR SIGNIFICANT DISTURBED AREAS	Tote Road	31,521.00	-	$2.90	/m2	$91,410.90
Polishing Waste Stabilization Pond #2 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	3,200.00	-	$5.34	/m2	$17,088.00
Contaminated Snow Containment (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	2,716.00	-	$5.34	/m2	$14,503.44
Hazardous Waste Containment Area(s) - Liner	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	1,784.35	-	$5.34	/m2	$9,528.43
Landfarm Containment (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	11,367.00	-	$5.34	/m2	$60,699.78
Polishing Waste Stabilization Pond #3 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	3,200.00	-	$5.34	/m2	$17,088.00

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Drill Berm	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	297.29	90.67	$5.34	/m2	$1,587.53
Enviro Berm A	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	297.29	90.67	$5.34	/m2	$1,587.53
Enviro Berm B	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	715.35	218.18	$5.34	/m2	$3,819.99
Enviro Berm C	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	501.68	153.01	$5.34	/m2	$2,678.95
Enviro Berm D	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	501.68	153.01	$5.34	/m2	$2,678.95
Enviroberm C (Beside)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	58.06	17.71	$5.34	/m2	$310.06
Hazardous Waste Berm (Near Airstrip) (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	985.34	-	$5.34	/m2	$5,261.72
PWSP 1 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	1,672.25	-	$5.34	/m2	$8,929.82
PWSP 2 and PWSP 3 (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Mary River	5,852.89	-	$5.34	/m2	$31,254.43
Mary River Mine Site Landfarm (Liner)	1	Bermed/Lined Areas	LINER REMOVAL	Mary River	14,083.00	-	$3.41	/m2	$48,023.03
Maintenance Building #2 (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Milne Port	557.36	144.91	$36.54	/m3	$20,363.57
Ore Haul Maintenance Building (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Mary River	2,415.24	627.96	$36.54	/m3	$88,242.12
Ore Haul Truck Wash Building (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Mary River	483.05	125.59	$36.54	/m3	$17,648.42

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Site Services Unheated Warehouse (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Milne Port	371.58	96.61	$36.54	/m3	$13,575.71
Truck Wash (Repurposed Warehouse)_(Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Milne Port	371.58	96.61	$36.54	/m3	$13,575.71
Welding Shop Building #2 (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Milne Port	148.63	38.64	$36.54	/m3	$5,430.28
Welding Shop Building #2 (Precast Foundation)	1	Non-Hazardous	REMOVE PRECAST CONCRETE FOUNDATIONS - LOW	Mary River	334.42	86.95	$36.54	/m3	$12,218.14
Sewage Treatment Plant Upgrade	1	Buildings	REMOVE SEWAGE TREATMENT PLANT	N/A	29.73	90.61	$10,772.79	EA.	$10,772.79
Potable Water Treatment Plant Upgrade	1	Buildings	REMOVE POTABLE WATER	N/A	0.08	38.51	$9,422.75	EA.	$9,422.75
Accommodation Complex Expansion (Timber Cribbing)	1	Foundation	REMOVE TIMBER CRIBBING	Milne Port	3,321.15	18.62	$20.60	/m2	$68,401.88
Accommodation Complex Expansion (Timber Cribbing)	1	Foundation	REMOVE TIMBER CRIBBING	Mary River	3,994.91	22.40	$20.60	/m2	$82,278.53
Ore Haul Truck Workshop Office Building (Timber Cribbing)	1	Foundation	REMOVE TIMBER CRIBBING	Mary River	267.53	1.50	$20.60	/m2	$5,510.10
Pit Office Lunchroom Building (Timber Cribbing)	1	Foundation	REMOVE TIMBER CRIBBING	Mary River	66.88	0.37	$20.60	/m2	$1,377.53
Workshop Office Washcar (Timber Cribbing)	1	Foundation	REMOVE TIMBER CRIBBING	Mary River	35.67	0.20	$20.60	/m2	$734.68
Pit Office Lunchroom Building	1	Buildings	SINGLE MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	66.88	163.08	$61.48	/m2	$4,111.69
Workshop Office Washcar	1	Buildings	SINGLE MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	35.67	86.98	$61.48	/m2	$2,192.90

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Accommodation Area E-House #3	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Milne Port	37.16	124.58	$184.43	/m2	$6,852.82
Accommodation Area E-House #3	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	37.16	124.58	$184.43	/m2	$6,852.82
Crushing and Screening E-House #2	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	59.45	199.32	$184.43	/m2	$10,964.51
Power Generation E-House #3	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	75.24	275.20	$184.43	/m2	$13,876.96
Power Generation E-House #4	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	75.24	275.20	$184.43	/m2	$13,876.96
Power Generation Module #10	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	51.93	221.58	$184.43	/m2	$9,576.82
Power Generation Module #7	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	51.93	221.58	$184.43	/m2	$9,576.82
Power Generation Module #8	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	51.93	221.58	$184.43	/m2	$9,576.82
Power Generation Module #9	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	51.93	221.58	$184.43	/m2	$9,576.82
Power Generation Stores #2	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	29.73	90.60	$184.43	/m2	$5,482.26
Services Area E-House #3	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Milne Port	37.16	124.58	$184.43	/m2	$6,852.82
Services Area E-House #3	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - CONTAMINATED	Mary River	37.16	124.58	$184.43	/m2	$6,852.82

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Accommodation Arctic Corridor	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	213.66	846.55	$61.48	/m2	$13,134.57
Accommodation Arctic Corridor	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	55.74	220.84	$61.48	/m2	$3,426.41
Accommodation Change Rooms	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	267.53	1,060.03	$61.48	/m2	$16,446.77
Accommodation Exercise Facility	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	200.65	795.02	$61.48	/m2	$12,335.08
Accommodation Exercise Facility	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	200.65	795.02	$61.48	/m2	$12,335.08
Accommodation Service Core Extension	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	193.22	765.58	$61.48	/m2	$11,878.22
Accommodation Service Core Extension	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	222.95	883.36	$61.48	/m2	$13,705.64
Accommodation Wing AH	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing AI	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing AJ	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing AK	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	457.97	1,814.56	$61.48	/m2	$28,153.68
Accommodation Wing AL	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	611.52	2,422.97	$61.48	/m2	$37,593.44

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Accommodation Wing AM	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Mary River	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing BE	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing BF	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing BG	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	611.52	2,422.97	$61.48	/m2	$37,593.44
Accommodation Wing BH	1	Buildings	SPECIAL MODULAR BUILDING TEARDOWN - NOT CONTAMINATED	Milne Port	611.52	2,422.97	$61.48	/m2	$37,593.44
Additional Hazardous Waste Containment Cell (Liner Only)	1	Bermed/Lined Areas	LINER REMOVAL	Milne Port	972.00	-	$3.41	/m2	$3,314.52
Heavy Equipment	8	Equipment	REMOVE HEAVY EQUIPMENT	N/A	-	657.68	$41,937.03	EA.	$335,496.24
Heavy Mobile Equipment	79	Equipment	REMOVE HEAVY MOBILE EQUIPMENT	N/A	-	11,425.77	$2,251.31	EA.	$177,853.49
Light Equipment	1	Equipment	REMOVE LIGHT EQUIPMENT	N/A	-	1.94	$1,784.11	EA.	$1,784.11
Light Mobile Equipment	27	Equipment	REMOVE LIGHT MOBILE EQUIPMENT	N/A	-	606.42	$938.16	EA.	$25,330.40
Medium Equipment	3	Equipment	REMOVE MEDIUM EQUIPMENT	N/A	-	17.07	$4,276.14	EA.	$12,828.43
Medium Mobile Equipment	19	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	N/A	-	1,384.91	$1,559.26	EA.	$29,626.01
Potable Water Treatment Plant Upgrade	1	Buildings	REMOVE POTABLE WATER	N/A	14.86	38.51	$9,422.75	EA.	$9,422.75
Explosives Magazines	3	Equipment	REMOVE HEAVY EQUIPMENT	Mary River	100.34	306.02	$41,937.03	EA.	$125,811.09
Airfield Power Generation	1	Equipment	REMOVE HEAVY EQUIPMENT	Mary River	-	11.99	$41,937.03	EA.	$41,937.03

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Explosives Magazine	1	Equipment	REMOVE HEAVY EQUIPMENT	Mary River	33.45	102.01	$41,937.03	EA.	$41,937.03
Large Equipment [Reclamation (Equipment Audit) Tab]	5	Equipment	REMOVE HEAVY EQUIPMENT		-	411.05	$41,937.03	EA.	$209,685.15
Power and Generation Systems (Modules)	8	Equipment	REMOVE HEAVY EQUIPMENT	Milne Port	415.46	1,772.86	$41,937.03	EA.	$335,496.24
Large Equipment [Reclamation (Equipment Audit) Tab]	27	Equipment	REMOVE HEAVY EQUIPMENT	N/A	-	-	$41,937.03	EA.	$1,132,299.81
Explosives Magazine	6	Equipment	REMOVE HEAVY EQUIPMENT	Mary River	217.56	456.89	$41,937.03	EA.	$251,622.18
Explosives Magazine	1	Equipment	REMOVE HEAVY EQUIPMENT	Mary River	9.98	20.96	$41,937.03	EA.	$41,937.03
Explosives Magazines	2	Equipment	REMOVE HEAVY EQUIPMENT	Tote Road	29.77	77.10	$41,937.03	EA.	$83,874.06
Heavy Mobile Equipment [Reclamation (Equipment Audit) Tab]	122	Equipment	REMOVE HEAVY MOBILE EQUIPMENT	N/A	-	17,720.50	$2,251.31	EA.	$274,659.82
Cummings Generators	2	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	-	3.63	$1,784.11	EA.	$3,568.22
Light Equipment [Reclamation (Equipment Audit) Tab]	158	Equipment	REMOVE LIGHT EQUIPMENT		-	306.52	$1,784.11	EA.	$281,889.37
Room to Go (Portable Water Closet)	1	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	2.31	6.93	$1,784.11	EA.	$1,784.11
Steel Bin	1	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	2.88	3.60	$1,784.11	EA.	$1,784.11
Steel Garabage Bin	2	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	5.95	8.34	$1,784.11	EA.	$3,568.22
Fuel Pump Container (1 Jet-A) - Fuel Dispensing Equipment	1	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	14.86	38.51	$1,784.11	EA.	$1,784.11
Fuel Pump Containers (2 Arcitc Diesel) - Fuel Dispensing Equipment	2	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	29.73	77.02	$1,784.11	EA.	$3,568.22

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Mary River Weatherhaven Camp (20' Reefer Container)	2	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	29.77	77.12	$1,784.11	EA.	$3,568.22
Mary River Weatherhaven Camp (40' Reefer Container)	1	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	29.74	77.06	$1,784.11	EA.	$1,784.11
Old Filling Station	3	Equipment	REMOVE LIGHT EQUIPMENT	Mary River	89.19	10.89	$1,784.11	EA.	$5,352.33
Old Filling Station (Dispensing Module)	1	Equipment	REMOVE LIGHT EQUIPMENT	Milne Port	-	3.63	$1,784.11	EA.	$1,784.11
Tank Farm Pump House (Fuel Dispensing Unit)	1	Equipment	REMOVE LIGHT EQUIPMENT	Milne Port		3.63	$1,784.11	EA.	$1,784.11
Light Mobile Equipment [Reclamation (Equipment Audit) Tab]	179	Equipment	REMOVE LIGHT MOBILE EQUIPMENT		-	4,306.74	$938.16	EA.	$167,931.16
Environmental Lab Trailer	1	Equipment	REMOVE LIGHT MOBILE EQUIPMENT	Milne Port	14.86	49.84	$938.16	EA.	$938.16
Medium Equipment [Reclamation (Equipment Audit) Tab]	102	Equipment	REMOVE MEDIUM EQUIPMENT	N/A	-	568.98	$4,276.14	EA.	$436,166.65
Raw Sewage Lift Station	1	Equipment	REMOVE MEDIUM EQUIPMENT	Milne Port	14.88	38.55	$4,276.14	EA.	$4,276.14
Incinerator	2	Incinerators	REMOVE MEDIUM EQUIPMENT	Milne Port	29.77	77.10	$4,276.14	EA.	$8,552.29
Incinerator	2	Incinerators	REMOVE MEDIUM EQUIPMENT	Mary River	29.73	77.02	$4,276.14	EA.	$8,552.29
Matrix Camp (Generator and Fuel Lined Area) - Generator	1	Equipment	REMOVE MEDIUM EQUIPMENT	Milne Port	10.44	3.24	$4,276.14	EA.	$4,276.14
Matrix Camp (Medium Sized Generator)	1	Equipment	REMOVE MEDIUM EQUIPMENT	Milne Port	2.00	0.62	$4,276.14	EA.	$4,276.14
Stairs for Jet Plane	1	Non-Hazardous	REMOVE MEDIUM EQUIPMENT	Mary River	8.36	20.39	$4,276.14	EA.	$4,276.14
Tank Farm Generator (HC Container)	1	Equipment	REMOVE MEDIUM EQUIPMENT	Milne Port		86.08	$4,276.14	EA.	$4,276.14
Crushing and Screening Electrical Trailer	1	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	Mary River	39.39	46.57	$1,559.26	EA.	$1,559.26

Item Description	# of Items	Type	Reclamation Activities	Mine Site	Area (m^2) Total	Volume (m^3) Total	Unit Rate	Unit	Reclamation Cost
Acklands Grainger 53' Trailer	1	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	Mary River	-	46.57	$1,559.26	EA.	$1,559.26
Medium Mobile Equipment [Reclamation (Equipment Audit) Tab]	81	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	N/A	-	5,904.09	$1,559.26	EA.	$126,300.36
Nuna Shop (Trailer Office)	1	Equipment	REMOVE MEDIUM MOBILE EQUIPMENT	Mary River	13.38	40.78	$1,559.26	EA.	$1,559.26
Landfill (Light Equipment)	1	Landfill	FILL APPLICATION	N/A	61.69	-	$1.93	/m2	$119.06
Landfill (Light Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	438.06	-	$1.93	/m2	$845.46
Landfill (Large Equipment)	1	Landfill	FILL APPLICATION	N/A	315.89	-	$1.93	/m2	$609.67
Landfill (Large Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	1,772.05	-	$1.93	/m2	$3,420.06
Landfill (Medium Equipment)	1	Landfill	FILL APPLICATION	N/A	87.20	-	$1.93	/m2	$168.30
Landfill (Medium Mobile Equipment)	1	Landfill	FILL APPLICATION	N/A	612.28	-	$1.93	/m2	$1,181.70
Fuel Bladder Farm (Liner)	1	Bermed/Lined Areas	GRADE AND RE-CONTOUR WITH LINER	Milne Port	12,209.53	-	$1.93	/m2	$23,564.40

Table B 2. Detailed Reclamation Security Results, Indirect Costs Line Items Removed.

Item Description	# of Items	Type	Reclamation Activities	Volume (m^3) Total	Weight (kg) (Total)	Unit Rate	Unit	Reclamation Cost
Explosives	1	Hazardous	EXPLOSIVES	-	369,620.00	$2.37	/kg	$875,999.40
Explosives	1	Hazardous	EXPLOSIVES	-	233,380.00	$2.37	/kg	$553,110.60

APPENDIX C – SUPPORTING INFORMATION

Table C 1. BIMC's inventory of explosives and ammonium nitrate as reported at the end of July 2015.

July Ending Inventory	
Product Type	**Kg's**
Sum of Blastex 65x400 (12/cs)	19,583
Sum of Blastex 75x400 (8/cs)	16,960
Sum of Blastgel 76mm x 4kg	59,440
Sum of Blastgel 81mmx4.5kg	-
Sum of Blastgel 76mmx4.5kg	-
Sum of Blastgel 83mmx4.5kg	322,839
Sum of Blastgel 75mmx4.5kg	64,643
Sum of Blastgel 83mmx5.9kg	401
Sum of Blastgel 125mmx11.3kg	126,560
Sum of Blastgel 138mmx13.5kg	97,983
Explosives Subtotal	708,409
July Ending Inventory	
Ammonium Nitrate Inventory	1,525,000
Ammonium Nitrate Subtotal	1,525,000
Total Explosives and Ammonium Nitrate	**2,233,409**

APPENDIX D – SUMMARY OF SELECT UNIT COSTS

Light Mobile Equipment (Assumed 3rd Party Equipment) Backhaul

					U.S. Averages		Ottawa Index	Ottawa Costs	Nunavut Index	Nunavut Costs	
					Hourly	Daily		Hourly		Hourly	
Load	Crew	1 Laborer			$56.55		1.05	$59.38	1.6	$95.00	
		1 Equipment Operator Medium			$74.15		1.05	$77.86	1.6	$124.57	
		1 F.E. Loader, W.M., 2.5 CY			$71.89	$575.08	1.038	$74.62	2.5	$186.54	
										$406.12	/hr
	Crew	Daily Output (Volume) =	24	ea.							
		Daily Cost (8 hour day) =	$3,248.94								
		Cost ea. =	$135.37	ea.							
Haul	Crew	1 Truck Driver (heavy)			$57.30		1.05	$60.17	1.6	$96.26	
		1 Truck Tractor, 220 H.P.			$50.38	$403.04	1.038	$52.29	2.5	$130.74	
		1 Flatbed Trailer, 40 Ton			$20.90	$167.20	1.038	$21.69	2.5	$54.24	
										$281.24	/hr
	Crew	Daily Output (Volume) =	12	ea.							
		Daily Cost (8 hour day) =	$2,249.88								
		Cost per m3 =	$187.49								
Backhaul Shipping		Shipping Cost	$103.02	/m^3							
		Average Volume	24.06	m^3							
		Cost ea. =	$2,478.66	ea.							

Unit Cost Light Mobile Equipment Backhaul (ARKTIS) = $2,801.52 ea.

Unit Cost Light Mobile Equipment (BIMC) = $0.00 ea.

Medium Mobile Equipment (Assumed 3rd Party Equipment) Backhaul

					U.S. Averages		Ottawa Index	Ottawa Costs	Nunavut Index	Nunavut Costs	
					Hourly	Daily		Hourly		Hourly	
Load	Crew	1 Laborer			$56.55		1.05	$59.38	1.6	$95.00	
		1 Equipment Operator Medium			$74.15		1.05	$77.86	1.6	$124.57	
		1 F.E. Loader, W.M., 2.5 CY			$71.89	$575.08	1.038	$74.62	2.5	$186.54	
										$406.12	/hr
	Crew	Daily Output (Volume) =	24	ea.							
		Daily Cost (8 hour day) =	$3,248.94								
		Cost ea. =	$135.37	ea.							
Haul	Crew	1 Truck Driver (heavy)			$57.30		1.05	$60.17	1.6	$96.26	
		1 Truck Tractor, 220 H.P.			$50.38	$403.04	1.038	$52.29	2.5	$130.74	
		1 Flatbed Trailer, 40 Ton			$20.90	$167.20	1.038	$21.69	2.5	$54.24	
										$281.24	/hr
	Crew	Daily Output (Volume) =	4	ea.							
		Daily Cost (8 hour day) =	$2,249.88								
		Cost per m3 =	$562.47								
Backhaul Shipping		Shipping Cost	$103.02	/m^3							
		Average Volume	72.89	m^3							
		Cost ea. =	$7,509.13	ea.							

Unit Cost Medium Mobile Equipment Backhaul (ARKTIS) =	**$8,206.97**	**ea.**
Unit Cost Medium Mobile Equipment (BIMC) =	**$0.00**	**ea.**

Heavy Mobile Equipment (Assumed 3rd Party Equipment) Backhaul

					U.S. Averages		Ottawa Index	Ottawa Costs	Nunavut Index	Nunavut Costs	
					Hourly	Daily		Hourly		Hourly	
Load	Crew	1 Laborer			$56.55		1.05	$59.38	1.6	$95.00	
		1 Equipment Operator Medium			$74.15		1.05	$77.86	1.6	$124.57	
		1 F.E. Loader, W.M., 2.5 CY			$71.89	$575.08	1.038	$74.62	2.5	$186.54	
										$406.12	/hr
	Crew	Daily Output (Volume) =	12	ea.							
		Daily Cost (8 hour day) =	$3,248.94								
		Cost ea. =	$270.75	ea.							
Haul	Crew	1 Truck Driver (heavy)			$57.30		1.05	$60.17	1.6	$96.26	
		1 Truck Tractor, 220 H.P.			$50.38	$403.04	1.038	$52.29	2.5	$130.74	
		1 Flatbed Trailer, 40 Ton			$20.90	$167.20	1.038	$21.69	2.5	$54.24	
										$281.24	/hr
	Crew	Daily Output (Volume) =	3	ea.							
		Daily Cost (8 hour day) =	$2,249.88								
		Cost per m3 =	$749.96	/m^3							
Backhaul Shipping		Shipping Cost	$103.02	/m^3							
		Average Volume	145.25	m^3							
		Cost ea. =	$14,963.66	ea.							

Unit Cost Heavy Mobile Equipment Backhaul (ARKTIS) = $8,206.97 ea.

Unit Cost Medium Mobile Equipment (BIMC) = $0.00 ea.

APPENDIX E – GENERAL TERMS AND CONDITIONS

USE OF REPORT

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of ARKTIS Solutions Inc.'s (ARKTIS) client. ARKTIS does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than ARKTIS' client unless otherwise authorized in writing by ARKTIS. Any unauthorized use of the report is at the sole risk of the user.

LIMITATIONS OF REPORT

This report is based solely on the conditions which existed on site at the time of ARKTIS' investigation. The client, and any other parties using this report with the express written consent of the clients and ARKTIS, acknowledge that conditions affecting the environmental assessment of the site can vary with time and that the conclusions and recommendations set out in this report are time sensitive.

The client, and any other party using this report with the express written consent of the client and ARKTIS, also acknowledge that the conclusions and recommendations set out in this report are based on limited observations and testing on the subject site and that conditions may vary across the site which, in turn, could affect the conclusions and recommendations made.

The client acknowledges that ARKTIS is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the client.

During the performance of the work and the preparation of this report, ARKTIS may have relied on the information provided by persons other than the client. While ARKTIS endeavors to verify the accuracy of such information when instructed to do so by the client, ARKTIS accepts no responsibility for the accuracy or the reliability of such information which may affect the report.

STANDARD OF CARE

Services performed by ARKTIS for this report have been conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and financial and physical constraints applicable to the services. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this report. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of this report.

ALTERNATE REPORT FORMAT

Where ARKTIS submits both electronic file and hard copy versions of reports, drawings and other project related documents and deliverables (collectively termed instruments of professional service), the Client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding. The hard copy versions submitted by ARKTIS shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancies, the hard copy versions shall govern over the electronic versions. Furthermore, the Client agrees and waives all future right of dispute that the original hard copy signed version archived by ARKTIS shall be deemed to be the overall original for the Project.

The Client agrees that both electronic file and hard copy versions of instruments of professional services shall not, under any circumstances, no matter who owns or uses them, be altered by any party except ARKTIS. The Client warrants that instruments of professional services will be used only and exactly as submitted by ARKTIS.