# **2024 WORK PLAN**

**DECEMBER 1, 2023** 

**REV 0** 



| Date            | Rev. | Status            | Prepared By |                                 | Che | cked By       |            | Approved By |
|-----------------|------|-------------------|-------------|---------------------------------|-----|---------------|------------|-------------|
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|                 |      |                   |             |                                 |     |               |            |             |



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#### 1 INTRODUCTION

The following document presents the 2024 Work Plan for the Mary River Project as required under Section 6.1 of Commercial Lease No. Q13C301 (the Lease) agreed between Baffinland Iron Mines Corporation (Baffinland) and the Qikiqtani Inuit Association (QIA). Additionally, this document is a requirement under Amendment No. 1 of the Type 'A' Water Licence 2AM-MRY1325 for the purposes of an Annual Security Review (ASR). In the event the Project does not advance, the work items as described and constructed in the 2024 Work Plan will be subject to reclamation, as per the Mary River Project Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012, refer to Appendix D and relevant regulatory and permit obligations.

The 2024 Work Plan has been prepared in accordance with the Lease Operations Guide for the "Annual Work Plan Submission" finalized in 2018. The Operations Guide is a set of procedures developed jointly by QIA and Baffinland to guide the on-going administration of the Lease.

Activities outlined in this 2024 Work Plan represent planned works, improvements, infrastructure and equipment required to execute the currently approved phase of the project.

An overview of the on-going mining operations and works planned for 2024 is provided below, with further details presented in subsequent sections of the document.

- 1. Operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore.
- 2. Continued development and construction of infrastructure required at Milne Port and the Mary River Mine Site (Mine Site) and along the Tote Road for the Mary River Project.
- 3. Continued operation of Mine Site and Milne Port Camps to support ongoing operations and construction activities which will include the use of water and deposition of waste as authorized under existing permits.
- 4. Ongoing operation of permitted quarry and borrow sources.
- 5. At Milne Port, vessels carrying fuel, equipment and supplies for use at the Mine Site and Milne Port will arrive during the summer. Material, fuel and supplies required for operational and construction activities will be transported to the Mine Site year round via the Tote Road.
- 6. Ongoing environmental effects studies and baseline data collection will continue to support Project activities as well as for future engineering requirements.
- 7. Continued environmental monitoring in accordance with the approved Project Certificate, licenses, authorizations, management plans and environmental effects monitoring plans.
- 8. Ongoing exploration activities including drilling, mapping, prospecting, sampling, and geophysics. Planning of the details of the summer drilling and/or trenching program are not yet finalized.
- 9. Tote Road improvements to address safety concerns, freshet runoff issues, fish passage issues and poor road conditions during the spring and summer periods.



10. Erection of additional maintenance facilities to safely service equipment.



## 2 LIST OF CURRENT PERMITS

The Work Plan is presented within the context of the applicable regulatory authorizations. The main regulatory instruments that allow for the 2024 Work Plan activities are presented in Table 2.1 below.

**Table 2-1: Existing Environmental Permits** 

| Permit Name   | Permit Number  | Regulatory Agency                                      | Expiry                  |
|---|--|--|-------------------------|
| Project Certificate   | 005, Amendment No.<br>004  | Nunavut Impact Review Board                            | No Expiry               |
| Inuit Impact Benefit Agreement  | N/A  | Qikiqtani Inuit Association                            | No Expiry               |
| Commercial Lease  | Q13C301  | Qikiqtani Inuit Association                            | 31-Dec-43               |
| Type A Water Licence, Amendment No. 1   | 2AM-MRY1325  | Nunavut Water Board                                    | 10-Jun-25               |
| Type B Water License – Exploration  | 2BE-MRY2131  | Nunavut Water Board                                    | 16-Apr-31               |
| Land Use Permit - Steensby  | N2019C0009   | Crown Indigenous Relations and Northern Affairs Canada | 29-Jun-24               |
| Land Use Permit – Tote Road   | N2019Q0011   | Crown Indigenous Relations and Northern Affairs Canada | 29-Jun-24               |
| Land Use Permit - Bruce Head  | N2019J0010   | Crown Indigenous Relations and Northern Affairs Canada | 29-Jun-24               |
| Quarrying Permit - Tote Road (Borrow P1 at Km 63)   | Under Review   | Crown Indigenous Relations and Northern Affairs Canada | N/A                     |
| Land Lease - Milne Foreshore  | 47H/16-1-2<br>Amendment<br>47H/16-1-5                                | Crown Indigenous Relations and Northern Affairs Canada | 30-Jun-35               |
| Permitted Quarries and Borrows on<br>Inuit Owned Land: Quarries Q1,<br>QMR2, Q7, Q11, Q19, Borrows<br>Km 104, Km 2, and Km 97 | N/A  | Qikiqtani Inuit Association                            | N/A                     |
| Fisheries Authorization – Freight Dock  | 18-HCAA-00160  | Fisheries and Oceans Canada                            | N/A                     |
| Fisheries Authorization - Tote Road   | NU-06-0084   | Fisheries and Oceans Canada                            | No Expiry               |
| Fisheries Authorization – Crossings   | 06-HCAA-CA7-00084  | Fisheries and Oceans Canada                            | N/A                     |
| Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements   | Various Letters of<br>Advice   | Fisheries and Oceans Canada                            | No Expiry               |
| Navigable Waters - Crossings  | 8200-07-10273, 10267,<br>10269, 10268, 10274,<br>10272, 10266, 10271 | Transport Canada                                       | Until work<br>completed |
| Marine Facility   | Statement of<br>Compliance of a Marine<br>Facility #1000000660       | Transport Canada                                       | 27-May-2025             |
| Scientific Permit <sup>1</sup>  | 02 012 23R-M   | Government of Nunavut                                  | 31-Dec-23               |
|   | 1  |  |                         |

#### NOTE:

<sup>1</sup> Held by Baffinland for data collection and analysis for environmental monitoring and management with the Project.

<sup>2</sup> Held by Dyno Nobel, the explosives contractor on behalf of the Project.



## 3 ANNUAL SCOPE OF OPERATIONS AND WORK

#### 3.1 2023 RECONCILIATION

Several activities identified in the 2022 Work Plan and previous years have been indefinitely postponed or removed from the current Project scope. Those were outlined in a letter Baffinland submitted to the NWB on August 15, 2023, and have been updated based on currents plans (Appendix A). These project adjustments and completions are summarized in Table 3.1. The items included in this reconciliation table are listed in Table 3.2, with corresponding amounts to reconcile the 2023 activities within the Global Estimate provided in Appendix A.

In addition, the 2023 reconciliation includes security for the water treatment plant constructed at the KM 105 sedimentation pond (Item 2023-1), and security for specific reclamation activities that will be required for the KM 105 dam at closure. These costs are outlined in a memorandum provided in Appendix A.

Table 3-1: Reconciliation of 2023 Activities in 2024 Work Plan<sup>1</sup>

| Description  | Amount (\$) |
|--|-------------|
| Water Treatment Plant at KM 105, KM 105 Dam Closure                    | 1,246,433   |
| Scope of Work Removed from current Project scope and Security Estimate | -2,432,277  |
| Subtotal – Direct Costs  | -1,185,844  |
| Indirect Costs   | -782,657    |
| Marginal Adjustment to 2022 Global Estimate Value                      | -1,968,501  |

<sup>&</sup>lt;sup>1</sup>Note: See Appendix A for details

It should be noted that among the activities initially earmarked for removal in the 2023 Work Plan, a few have undergone re-evaluation and will now remain as part of the 2024 Work Plan. These specific activities are detailed in Table 3.2, categorized under 'Work Proposed to be Removed in 2023 Work Plan that will be carried over in 2024 Work Plan'.

Additionally, other activities initially planned for the 2023 Work Plan, but either remained unfinished or were postponed, are documented in Table 3.2, categorized under 'Work Carried over from 2023'. These activities have been fully accounted for in the 2024 Work Plan's cost evaluation and are incorporated as reconciliation items for 2023 in the ASR estimate (Section 9.4).

## 3.2 2024 ACTIVITIES

Table 3.3 below provides a description of Baffinland's proposed operation and work for 2024, with an emphasis on changes from the previous year and the anticipated effects that this work would have on the Property and the infrastructure of the mine.

While the activities outlined in this 2024 Work Plan represent planned works, improvements, infrastructure, and equipment required to execute the currently approved phase of the project, it is anticipated that additional approvals from the NWB, QIA, and DFO will be required for select activities, and may include;



- Submission of issued-for-construction (IFC) drawings under the existing Type 'A' Water Licence 2AM-MRY1325;
- An Option Exercise Notice (OEN) to modify the boundaries of the Commercial Lease, or to reclassify lands in accordance the terms and conditions of the Commercial Lease;
- A Tote Road Adjustment Notice (TRAN) for changes to the alignment, grade or design of the Tote Road as described in the Lease Operations Guide for the Tote Road Adjustment Notice and in accordance with the terms and conditions of the Commercial Lease; and
- Authorization or Letter of Advice from DFO for impacts to fish or fish habitat.



Table 3-1: Scope of Work to be Reconciled in the 2023 Global Estimate

| Item No. | Property<br>Section                  | Land Use<br>Area | Approximate<br>Location  | Description   | Description of Effect on Feature(s)  | Anticipated<br>Completion<br>Year | Required Permit<br>Applications | Other<br>Information |
|----------|--------------------------------------|------------------|--|---|--|-----------------------------------|---------------------------------|----------------------|
| Scope o  | f Work Inc                           | cluded in t      | he 2023 Work   | Plan, Incorporated in the 2023 Global Estimate  |  |                                   |                                 |                      |
| 2023-1   | Mine<br>Site                         | Impact<br>Area   | (A) N7912740<br>E562483<br>(B) N7912825<br>E562090   | Water treatment plant for km 105 sedimentation pond   | Direct costs for installation of water<br>treatment plant at km 105, from 2023<br>Work Plan, Appendix B, Section 3.3.1.5 | 2023                              | Security                        | IFCs                 |
| Scope o  | f Work Pr                            | eviously A       | pproved and S  | Security Posted - Removed from the Current Scope of the Project   |  |                                   |                                 |                      |
| 2022-3   | Mine<br>Site                         | Impact<br>Area   | (A) N7912740<br>E562483<br>(B) N7912825<br>E562090   | Expansion to KM 105 Equipment Laydown east (27,509 m2) and west (36,332 m2)   | Leveling and grading within Potential<br>Development Area  | 2023                              | Security                        | Layout<br>drawings   |
| 2022-5   | Mine<br>Site                         | Impact<br>Area   | N7915327<br>E563264  | New Fuel tank (250,000L) to be mobilized on existing pad KM110.5.   | Leveling and grading within Project<br>Development Area (PDA)  | 2024                              | Security                        | Layout<br>drawings   |
| 2022-6   | Mine<br>Site                         | Impact<br>Area   | (A) N7914411<br>E562618<br>(B) N7914082<br>E563981<br>(C) N7914060<br>E563600<br>(D) N7915942<br>E563665 | Construction of a West perimeter road to bypass pit (74,577 m2), 510 Hillside Road (11,423 m2), 470 Hillside Road (2,429 m2) and Bypass road from cross-cut road towards waste dump(24,534 m2). | Leveling and grading within PDA  | 2023                              | Security                        | Layout<br>drawings   |
| 2022-14  | Mine<br>Site                         | Impact<br>Area   | N7913383<br>E560600  | Construction of a new COVID-19 PCR testing lab building at the Mine Site.   | No effect, will occur on developed laydown within PDA  | 2022                              | Security                        | None                 |
| 2022-16  | Mine<br>Site                         | Impact<br>Area   | N7916685<br>E563277  | Expansion to the Water Treatment Plant Pad (10,500 m2)  | Minor leveling and grading within PDA  | 2023                              | Security                        | None                 |
| 2022-17  | Milne<br>Port<br>and<br>Mine<br>Site | Impact<br>Area   | (A) Mine Site - N7915165 E556824 (B) Milne Port - N7973585 E504524                                       | Enhancement of training grounds for the Emergency Response Team with fire retardent infrastructure and secondary spill containment.   | Minor leveling and grading within PDA  | 2022                              | Security                        | None                 |
| 2022-18  | Milne<br>Port<br>and<br>Mine<br>Site | Impact<br>Area   | (A) Mine Site - N7914557 E558095 (B) Milne Port - N7976001 E503826                                       | Addition of offices/ trailers at the Environment Department work areas.   | No effect, will occur on developed laydown within PDA  | 2022                              | Security                        | None                 |
| 2022-20  | Mine<br>Site /<br>Milne<br>Port      | Impact<br>Area   | N7914347<br>E558102  | Construction of new Sedimentation Pond Camp Lake (10,000 m2) - lined  | Leveling and grading within PDA  | 2022                              | Security IFC submittal          | IFCs                 |
| 2021-2   | Milne<br>Port                        | Impact<br>Area   | N7975847<br>E503630  | Construction of new warehouse facility (seacan tent structure) on laydown LP2 <u>x 1127 m2</u>  | No effect, will be placed on developed laydown within PDA  | 2022                              | Security                        | None                 |
| 2021-3   | Milne<br>Port                        | Impact<br>Area   | N7976579<br>E503313  | Construction of offices and workshops at the stockpile and shiploader (x 208 m2)  | No effect, will be placed on developed laydown within PDA  | 2022                              | Security                        | None                 |



| Item No.     | Property<br>Section | Land Use<br>Area | Approximate<br>Location  | Description   | Description of Effect on Feature(s)                       | Anticipated<br>Completion<br>Year | Required Permit Applications                       | Other<br>Information |
|--------------|---------------------|------------------|--|---|---|-----------------------------------|--|----------------------|
| 2021-5       | Mine<br>Site        | Impact<br>Area   | (A) Mine Site - N7914254 E559146 (B) Milne Port - N7975987 E503795 | Construction of one (1) quonset hut structure at the aerodrome, and one (1) quonset hut structure adjacent to the Milne Port Fire Hall for emergency equipment storage. (assumed each 100 m2)   | No effect, will be placed on developed laydown within PDA | 2022                              | Security   | None                 |
| 2021-12      | Mine<br>Site        | Impact<br>Area   | N7913305<br>E560832  | Relocation of the Mine Site Complex (MSC) sewage treatment plant to be in line with the Sailiivik Camp sewage treatment plant.  | No effect, will be placed on developed laydown within PDA | 2022                              | None   | Layout<br>Drawings   |
| 2021-13      | Milne<br>Port       | Impact<br>Area   | N7976464<br>E504126  | Desalination Plant  | No effect, will be placed on developed laydown within PDA | 2022                              | Security<br>Water Licence<br>Modification          | IFCs                 |
| 2021-16      | Mine<br>Site        | Impact<br>Area   | N7913479<br>E561406  | Expansion of MSC laydown for vehicle parking (5,243 m2).  | Leveling and grading within PDA                           | 2023                              | Security   | Layout<br>Drawings   |
| 2020-1       | Mine<br>Site        | Impact<br>Area   | N7913348<br>E561121  | Installation of fuel line and associated piping between the mine site fuel storage areas and gensets. Total of 250m pipe.   | Minor leveling and grading within PDA.                    | 2022                              | Security   | IFCs                 |
| 2020-2       | Mine<br>Site        | Impact<br>area   | N7913321<br>E560631  | Installation of a mine dry facility at the Sailivik Camp.   | No effect, will be placed on developed laydown within PDA | 2022                              | Security   | Layout<br>drawings   |
| 2020-10      | Mine<br>Site        | Impact<br>Area   | N7914047<br>E559584  | Expansion of the warehouse laydown area for additional storage of seacans and equipment. Total area of 3,200 m <sup>2</sup> .   | Leveling and grading within PDA                           | 2022                              | Security   | Layout<br>Drawings   |
| 2019-1-<br>A | Milne<br>Port       | Impact<br>area   | (A) Q1 -<br>N7974810<br>E503970                                    | Development of quarry Q1  | Leveling and grading within PDA and<br>Tote Road          | 2022                              | Quarry Management<br>Plans                         | Surveys              |
| 2019-1-<br>E | Tote<br>Road        | Impact<br>Area   | (E) PQ6A -<br>N7929733<br>E528240<br>(194,000 m2)                  | Development and expansion of quarries, consisting of; four (4) new quarries along the Tote Road with 8m wide access roads, expansion of previously proposed but not constructed quarry Q5, and expansion of the working limits of existing quarry Q1.   | Leveling and grading within PDA and<br>Tote Road          | 2022                              | Quarry Management<br>Plans                         | Surveys              |
| 2019-2-<br>C | Tote<br>Road        | Impact<br>Area   | (C) Laydown 9<br>-N7929681<br>E527833<br>(92,500 m2)               | Development of six (6) laydowns adjacent to the existing Tote Road for material stockpiling and storage. The laydowns will be constructed by filling directly over undisturbed ground and 31m away from the high water mark of local waterbodies. The laydowns will be constructed of 500 mm thickness quarried rock with granular surfacing, free draining to appropriate ditches and water courses. All laydowns to cover approximately 2 ha, with one laydown at km 7 laydown covering approximately 7.5 ha. | Leveling and grading within PDA                           | 2022                              | OEN (Approved)                                     | Layout<br>Drawing(s) |
| 2019-6       | Milne<br>Port       | Impact<br>Area   | N7975763<br>E502984<br>(155,000 m2)                                | Expansion of the Milne Port Ore Stockpile and water management facilities to optimize stockpiling and shiploading operations, resulting in additional 140,000 m2 of stockpile area and 15,000 m2 lined sedimentation pond.  | Leveling and grading within PDA                           | 2022                              | Water Licence<br>Modification No. 12<br>(Approved) | IFCs                 |
| 2019-7       | Milne<br>Port       | Impact<br>Area   | N7974938<br>E503109<br>(6,000 m2)                                  | Construction of berm and linear steel support structure on laydown LP3 for receipt and storage of stacker/reclaimer equipment. Berm dimensions are 200m x 30m x 2m, constructed on existing disturbed area.   | No effect, will occur on developed laydown within PDA     | 2022                              | None - on existing<br>disturbed area               | Layout<br>Drawing(s) |



| Item No. | Property<br>Section | Land Use<br>Area | Approximate<br>Location            | Description  | Description of Effect on Feature(s)                   | Anticipated<br>Completion<br>Year | Required Permit<br>Applications  | Other<br>Information |
|----------|---------------------|------------------|------------------------------------|--|---|-----------------------------------|--|----------------------|
| 2019-8   | Milne<br>Port       | Impact<br>Area   | N7976033<br>E503590<br>(4,180 m2)  | Construction of new warehouse facility (seacan tent structure) on laydown LP2 <u>x 1127 m2</u>   | No effect, will occur on developed laydown within PDA | 2022                              | OEN<br>Water Licence<br>Modification   | IFCs                 |
| 2019-12  | Mine<br>Site        | Impact<br>Area   | N7914015<br>E564007<br>(91,000 m2) | Laydown area for parking and equipment storage at Km 107.5.  | Leveling and grading within PDA                       | 2022                              | None   | Layout<br>drawing(s) |
| 2019-16  | Mine<br>Site        | Impact<br>Area   | N7913450<br>E560450<br>(12,000 m2) | Expansion of the 800 person camp pad to the north by approximately 12,000 m <sup>2</sup> to accommodate additional support offices and buildings.  | Leveling and grading within PDA                       | 2022                              | None   | Layout<br>drawing(s) |
| 2019-17  | Mine<br>Site        | Impact<br>Area   | N7913450<br>E560450 (925<br>m2)    | Addition of offices/trailers/buildings at the 800p Camp. Total footprint is 925 m <sup>2</sup> , including approximately 500 m <sup>2</sup> for a new fire hall and emergency response building. | No effect, will occur on developed laydown within PDA | 2022                              | None   | Layout<br>drawing(s) |
| 2019-25  | Milne<br>Port       | Impact<br>Area   | N7976389<br>E503422<br>(4,400 m2)  | Installation of East Sedimentation Pond Expansion (2a) approved with Modification No. 9, but for which security has not been allocated.  | Leveling and grading within PDA                       | 2022                              | Water Licence<br>Modification No. 9<br>(Approved)<br>Submission of IFC<br>Drawings (Submitted) | IFCs                 |
| 2018-28  | Milne<br>Port       | Impact<br>Area   | N7976491<br>E504122                | Marine manifold building relocation - moving from current location north of fuel tank farm to upgraded freight dock location   | Positive effect. Reduced environmental spill risk.    | 2022                              | Water Licence<br>Modification No. 7<br>(Approved)  | Layout<br>drawing    |



Table 3-3: Scope of Work for 2024

| Item No. | Property<br>Section | Land Use<br>Area | Approximate Location   | Description   | Description of Effect on Feature(s)                       | Anticipated<br>Completion<br>Year | Required Permit<br>Applications | Other<br>Information |
|----------|---------------------|------------------|--|---|---|-----------------------------------|---------------------------------|----------------------|
| Scope o  | of Work fo          | r 2024           |  |   |   |                                   |                                 |                      |
| 2024-1   | Mine<br>Site        | Impact<br>Area   | N7914067 E559301   | Fencing at Mary River Aerodrome (788m length)   | No effect, will occur on developed laydown within PDA     | 2024                              | Security                        | Layout<br>drawings   |
| 2024-2   | Mine<br>Site        | Impact<br>Area   | N7914196 E560092   | QMR2 Quarry Sedimentation Pond (5,300 m2)   | Lined area on developed laydown within the PDA            | 2024                              | Security<br>IFC Submittal       | IFCs                 |
| 2024-3   | Mine<br>Site        | Impact<br>Area   | WRF - N7916397<br>E563475  | Leveling and grading within footprint of future Waste Rock Facility expansion to support geotechnical investigation work  | Leveling and grading within the PDA                       | 2024                              | Security<br>IFC Submittal       | IFCs                 |
| 2024-4   | Mine<br>Site        | Impact<br>Area   | N7912927 E561097   | Additional snow stockpiling area (25,000 m2)  | Leveling and grading within the PDA                       | 2024                              | Security                        | Layout<br>drawings   |
| 2024-5   | Mine<br>Site        | Impact<br>Area   | N7912823 E562064   | Development of a laydown area at the Mine Site for temporary storage of equipment and materials.  | Leveling and grading within the PDA                       | 2024                              | Security                        | Layout<br>drawings   |
| Work P   | roposed to          | o be Remo        | ved in 2023 Work Plan  | that will be carried over in 2024 Work Plan   |   |                                   |                                 |                      |
| 2022-2   | Mine<br>Site        | Impact<br>Area   | N7912959 E5630983  | Ore Stockpiling area at KM 105.5 (114,847 m2)   | Leveling and grading within PDA                           | 2024                              | Security<br>IFC Submittal       | None                 |
| 2022-11  | Mine<br>Site        | Impact<br>Area   | N7915411 E563242   | Installation of Power Distribution cabling from the new KM110 building to the Mine water treatment facility (500m)  | No effect, will be placed on developed laydown within PDA | 2024                              | Security                        | None                 |
| 2022-19  | Milne<br>Port       | Impact<br>Area   | N7976055 E503688   | Installation of Power Distribution cabling and distribution equipment for a new service from the Port Power house area to CV-001 on the shiploader. (Approximate Length: 855 m)                         | No effect, will be placed on developed laydown within PDA | 2024                              | Security                        | None                 |
| 2021-1   | Mine<br>Site        | Impact<br>Area   | (A) N7913243 E561233<br>(B) N7913358 E561547                               | Installation of power distribution cabling at the Mine Site facilities, including; a) Mary River Powerhouse to Dyno Nobel explosives facility (500 m) b) Mary River E-House 3 to KM 104 laydown (300 m) | No effect, will be placed on developed laydown within PDA | 2024                              | Security                        | None                 |
| 2021-17  | Mine<br>Site        | Impact<br>Area   | (A) N7913688 E563838<br>(B) N7914037 E564237                               | Construction of three (3) laydown areas for road aggregate storage on the mine haul road 106 Km (4,843 m2), 107 Km (2,159 m2)   | Leveling and grading within PDA                           | 2024                              | Security                        | Layout<br>Drawings   |
| 2020-3   | Mine<br>Site        | Impact<br>Area   | A) Mine Site - N7914780<br>E558420<br>(B) Milne Port -<br>N7975973 E503774 | Installation of two (2) new waste incineration units; one (1) at the Mine Site, one (1) at Milne Port   | No effect, will be placed on developed laydown within PDA | 2024                              | Security                        | IFCs                 |
| 2020-14  | Tote<br>Road        | Impact<br>Area   | A) KM 26 - N7959689<br>E518576<br>(B) KM 80 - N7922308<br>E542130          | Addition of washroom facilities/refuge stations at KM26 and KM80 IT Towers.   | Minor leveling and grading within PDA.                    | 2024                              | Security                        | Layout<br>Drawings   |
| 2019-16  | Mine<br>Site        | Impact<br>Area   | N7913450 E560450   | Expansion of the 800 person camp pad to the north by approximately 12,000 m <sup>2</sup> to accommodate additional support offices and buildings.   | Leveling and grading within PDA                           | 2024                              | Security                        | Layout<br>Drawings   |
| 2019-17  | Mine<br>Site        | Impact<br>Area   | N7913450 E560450   | Addition of offices/trailers/buildings at the 800p Camp. Total footprint is 925 m <sup>2</sup> , including approximately 500 m <sup>2</sup> for a new fire hall and emergency response building.        | No effect, will occur on developed laydown within PDA     | 2024                              | Security                        | Layout<br>Drawings   |
| Work C   | arried ove          | er from 202      | 23   |   |   |                                   |                                 |                      |
| 2023-2   | Mine<br>Site        | Impact<br>Area   | N7913149 E563603   | Expansion of KM 106 stockpile pad to increase road width to accommodate water truck loading area (2,000 m²)   | Leveling and grading within PDA                           | 2024                              | Security                        | Layout<br>drawings   |
| 2023-3   | Mine<br>Site        | Impact<br>Area   | N7914362 E558333   | Lined containment berm and 15,000 L Jet A Tank at the weatherhaven.   | No effect, will occur on developed laydown within PDA     | 2024                              | Security                        | IFCs                 |
|          |                     |                  |  | •   | •   |                                   |                                 |                      |



| Item No. | Property<br>Section | Land Use<br>Area | Approximate Location   | Description  | Description of Effect on Feature(s)  | Anticipated<br>Completion<br>Year | Required Permit Applications                      | Other<br>Information |
|----------|---------------------|------------------|--|--|--|-----------------------------------|---|----------------------|
| 2023-4   | Tote<br>Road        | Impact<br>Area   | Various  | Replacement of culverts at fish-bearing streams along the Milne Inlet Tote Road to designs exceeding those in the 2013 ERP design.   | Leveling and grading within PDA  | 2024                              | Security<br>Fisheries Act Order, IFC<br>submittal | IFCs                 |
| Work C   | arried ove          | er from Pri      | or Years   |  |  |                                   |   |                      |
| 2022-1   | Mine<br>Site        | Impact<br>Area   | (A) N7912718 E560727<br>(B) N7912733 E560724   | Construction of Landfarm Cell 4 (4,611 m²) and expansion of Cell 3 (1,288 m²). 2024 WORK PLAN UPDATE: Landfarm Cell 4 will be removed from the planned scope of work.  | Leveling and grading within Potential<br>Development Area                    | 2024                              | Security  | None                 |
| 2022-4   | Mine<br>Site        | Impact<br>Area   | N7913097 E561423   | Mobile equipment laydown and tire facility (14,108 m²).  | Leveling and grading within PDA  | 2024                              | Security  | Layout<br>drawings   |
| 2022-10  | Mine<br>Site        | Impact<br>Area   | N7914460 E558050   | 15,000 L Bulk diesel storage at Weatherhaven to support drilling operations  | No effect, will be placed on developed lined containment facility within PDA | 2024                              | N/A   | N/A                  |
| 2022-12  | Mine<br>Site        | Impact<br>Area   | N7913182 E561074   | Construction of new Sedimentation Pond SDLT-1 - 20,678 m² (lined), 58,324 m² (unlined)   | Leveling and grading within PDA  | 2024                              | Security, IFC submittal                           | IFCs                 |
| 2022-13  | Mine<br>Site        | Impact<br>Area   | N7914459 E563934   | Communication tower KM 108   | No effect, will occur on developed laydown within PDA                        | 2024                              | Security  | Layout<br>drawings   |
| 2022-15  | Mine<br>Site        | Impact<br>Area   | N7913226 E561516   | New building and expansion of Mary River HD Maintenance Shop (878 m²)  | Leveling and grading within PDA  | 2024                              | Security  | None                 |
| 2021-8   | Milne<br>Port       | Impact<br>Area   | N7975343 E503420   | New thaw and wash bay facility for mobile vehicle maintenance. Footprint of 1,250 m <sup>2</sup> .   | No effect, will be placed on developed laydown within PDA                    | 2024                              | Security  | Layout<br>Drawings   |
| 2021-10  | Mine<br>Site        | Impact<br>Area   | N7912392 E560965   | Development of Landfill Cell #4  | Fill placed on undisturbed tundra, erection of perimeter fencing.            | 2024                              | None  | IFCs                 |
| 2021-14  | Mine<br>Site        | Impact<br>Area   | N7914430 E562938   | Modification to roadways within the ultimate pit limit of Deposit 1, including pit perimeter road and expansion of the cross cut road. All ground disturbance and road construction within the ultimate Deposit 1 pit limits.  | Leveling and grading within PDA and the ultimate pit limit                   | 2024                              | None  | Layout<br>Drawings   |
| 2021-15  | Mine<br>Site        | Impact<br>Area   | (A) N7913312 E561706<br>(B) N7912785 E562266   | Expansion of the area east of the Mine Site workshops and crushing area for improved traffic management - KM 104 to MSC (19,424 m²), KM 104.5 to Crusher (18,308 m²).  | Leveling and grading within PDA  | 2024                              | Security<br>Water Licence<br>Modification         | IFCs                 |
| 2021-19  | Mine<br>Site        | Impact<br>Area   | N7915574 E564180   | Explosives plant secondary storage location TBD (20,000 m <sup>2</sup> - laydown grade and recontour)  | Leveling and grading within PDA  | 2024                              | Security<br>NRCan Approval                        | Layout<br>Drawings   |
| 2020-4   | Mine<br>Site        | Impact<br>Area   | N7916744 E563228   | Expansion of the Waste Rock Facility Water Treatment Plant to include an additional ge otube settling containment area. Total footprint of new lined area is 3,000 m <sup>3</sup> .  | Leveling and grading within PDA  | 2024                              | Security Water Licence<br>Modification            | IFCs                 |
| 2020-7   | Mine<br>Site        | Impact<br>Area   | N7914428 E563192   | Implementation of a water management plan for Deposit 1, including berms and ditchin g to manage surface water.  | Leveling and grading within the ultimate limit of Deposit 1                  | 2024                              | None  | IFCs                 |
| 2020-8   | Mine<br>Site        | Impact<br>Area   | (A) HD Shop - N7913209<br>E561467<br>(B) MR Shop - N7913295<br>E5612525<br>(C) Wash Bay -<br>N7913213 E561645<br>(D) 110 Laydown -<br>N7915177 E563454 | Construction of waste containment cells exterior to workshop facilities, for temporary storage of materials prior to longer term storage in the Hazardous Waste Berms and eventual backhaul.  HD Shop - 72 m²  MR Shop - 120 m²  Wash Bay - 120 m²  110 Laydown - 144 m² | Lined area on developed laydown within the PDA                               | 2024                              | Security<br>Water Licence<br>Modification<br>OEN  | IFCs                 |



| Item No. | Property<br>Section                  | Land Use<br>Area | Approximate Location  | Description   | Description of Effect on Feature(s)   | Anticipated<br>Completion<br>Year | Required Permit Applications   | Other<br>Information |
|----------|--------------------------------------|------------------|---|---|---|-----------------------------------|--|----------------------|
| 2020-13  | Tote<br>Road                         | Impact<br>area   | Various   | Continued work to repair and replace culverts along the Tote Road, including those with identified fish passage issues. All culverts will be repaired or replaced to the 2013 Early Revenue Phase design.   | Positive environmental effect, focus on improving water management and fish passage | 2024                              | None - Security in<br>Place  | N/A                  |
| 2019-9   | Milne<br>Port                        | Impact<br>Area   | N7975481 E503779<br>(2,700 m2)  | New contaminated water/snow containment pond adjacent to existing pond at Milne Port  | Leveling and grading within PDA   | 2024                              | OEN<br>Water Licence<br>Modification   | IFCs                 |
| 2019-11  | Mine<br>Site /<br>Milne<br>Port      | Impact<br>Area   | (A) Mine Site -<br>N7914539 E558228 (360<br>m2)<br>(B) Milne Port -<br>N7976251 E503915 (360<br>m2) | Construction of new hazardous waste berm at the Mine site and at Milne Port.  Decommissioning of select existing berms to consolidate waste management.   | Environmental optimization. Leveling and grading within PDA                         | 2024                              | OEN<br>Water Licence<br>Modification   | IFCs                 |
| 2019-15  | Mine<br>Site                         | Impact<br>Area   | N7914500 E558150<br>(13,800 m2)   | Decommissioning and repurposing of Weatherhaven structures for storage and workspace.   | No effect, will occur on developed laydown within PDA                               | 2024                              | None   | Layout<br>drawing(s) |
| 2019-18  | Mine<br>Site                         | Impact<br>Area   | N7912328 E561111<br>(9,000 m2)  | Construction of a landfarm at the Mine Site landfill facility, with an estimated footprint of 9,000 m <sup>2</sup> . Disturbed area included in 2018 Addendum, new lined area requires security allocation.   | Leveling and grading within PDA. Area already allocated as disturbed.               | 2024                              | Water Licence Modification No. 10 (Approved) Security in place Notification to NWB | IFCs                 |
| 2018-27  | Milne<br>Port                        | Impact<br>Area   | N7976483 E504119  | Relocation of effluent discharge point to barge offload area  | Positive effect. Reduced environmental spill risk.                                  | 2024                              | Water Licence<br>Modification No. 7<br>(Approved)                                  | IFCs                 |
| Progress | sive Recla                           | amation          | 1   |   |   | <u> </u>                          |  |                      |
|          | Milne<br>Port                        | -                | N7975568 E503745  | Management of hydrocarbon impacted soils within the existing landfarm facilities.   | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Milne<br>Port                        | -                | N/A   | Demobilization of equipment and supplies not required for near term activities as well as current inventory of hazardous waste and other materials by means of sealift from Milne Port.   | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Milne<br>Port<br>and<br>Mine<br>Site | -                | N/A   | Discharge and treatment of residual treated sewage effluent stored in PWSP at Mary River Exploration Camp and Milne Port Site.  | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Tote<br>Road                         | -                | N/A   | Continue the development and implementation of a long term multi-year plan to address localized areas of permafrost degradation associated with the current borrow areas including KM 97  | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Tote<br>Road                         | -                | N/A   | Reclamation of sections of the exploration phase Tote Road no longer in use by means of scarifying and culvert removals.  | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Mine<br>Site                         | -                | N7912845 E560922  | Continued development of the Mine Site landfill and deposition of non-hazardous waste in accordance with the Landfill Maintenance and Operations Manual   | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Site<br>Wide                         | -                | N/A   | Ongoing removal from site, or safe disposal on-site of infrastructure, equipment and supplies no longer required for ongoing construction and operations.   | N/A   | Ongoing                           | N/A  | N/A                  |
|          | Site<br>Wide                         | -                | N/A   | Unless otherwise identified within the approved interim Closure and Reclamation Plan, where roads are no longer in use - removal of culvert and open/restore the natural drainage channel. Measures will be taken to minimize erosion and sedimentation | N/A   | Ongoing                           | N/A  | N/A                  |



# 2024 Work Plan, Rev. 0



| Item No. | Property<br>Section | Land Use<br>Area | Approximate Location | Description   | Description of Effect on Feature(s) | Anticipated<br>Completion<br>Year | Required Permit Applications | Other<br>Information |
|----------|---------------------|------------------|----------------------|---|-------------------------------------|-----------------------------------|------------------------------|----------------------|
|          | Site<br>Wide        | -                | N/A                  | Areas that have been contaminated by hydrocarbons from normal fuel transfer, handling and storage activities will be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation 2010. Use of reclamation soils for purpose of back fill or general site grading may be carried out with approval of applicable inspectors and agencies. | N/A                                 | Ongoing                           | N/A                          | N/A                  |



## 3.3 INFRASTRUCTURE LAYOUT AT END OF 2024

Site layouts for Milne Port, the Milne Inlet Tote Road, and the Mary River Mine Site, can be found in Appendix B of this document. The activities proposed in the 2024 Work Plan are identified on those site layouts by item number, as referenced in Table 3.3.



#### 4 MINING AND EXPLORATION ACTIVITIES

## 4.1 EXPLORATION ACTIVITIES AND DRILLING PLANS

The scope of Baffinland's Type 'B' Licence (2BE-MRY2131) and Commercial Lease with QIA allows for Baffinland to continue/undertake the exploration activities and drilling programs on its mineral leases in the Qikiqtani Region of Nunavut. This includes the exploration land use areas as defined in Section 2.2 of Commercial Lease. The types of exploration activities planned for 2024 are included within the scope of the Type 'B' Water Licence.

At this time when the Work Plan is required to be submitted, the exploration and drilling programs for 2024 have not yet been finalized. However, as a minimum, activities will include:

- Drilling
- Mapping
- Sampling
- Geophysical and geochemical surveys.

It is anticipated that exploration activities will continue in 2024 with a drilling program on Deposits 1, 2, and 3. Once proposed drilling locations are finalized, this information will be provided to QIA, NWB, CIRNAC, and others.

#### 4.2 AMOUNT AND TYPE OF ORE AND WASTE TO BE MINED

An estimate of the breakdown of ore vs. waste to be mined from Deposit No. 1 by month during 2024 is provided in Table 4.1 below.



Table 4-1: Mine Forecast 2024

| Month     | Ore Mined (wmt) | Waste Mined<br>(wmt) | Total Mined (wmt) |
|-----------|-----------------|----------------------|-------------------|
| January   | 571,007         | 391,463              | 962,470           |
| February  | 600,410         | 393,514              | 993,923           |
| March     | 507,948         | 454,521              | 962,470           |
| April     | 551,957         | 581,879              | 1,133,836         |
| May       | 588,936         | 485,688              | 1,074,624         |
| June      | 564,192         | 392,031              | 956,223           |
| July      | 613,929         | 342,448              | 956,377           |
| August    | 591,000         | 365,223              | 956,223           |
| September | 500,870         | 425,000              | 925,870           |
| October   | 465,830         | 570,662              | 1,036,492         |
| November  | 448,051         | 556,949              | 1,005,000         |
| December  | 466,789         | 569,703              | 1,036,492         |
| Total     | 6,470,919 1     | 5,529,081            | 12,000,000        |

Total ore mined is a target for 2024. In accordance with Term and Condition 179(b) of Project Certificate No. 005, Amendment 4, no more than than 6 Mt of ore will be transported by truck on the Milne Inlet Tote Road in 2024.

## 4.3 AMOUNT AND TYPE OF ORE TO BE SHIPPED EACH MONTH

Ore shipping during 2024 will occur between August and October. The expected total shipping quantities for 2024 are shown in Table 4.2 below.



Table 4-2: Ore Shipping Forecast 2024

|           | Lump Ore Shipped (wmt) |                   | Fines Ship  | Fines Shipped (wmt) |                        | ped (wmt)         |
|-----------|------------------------|-------------------|-------------|---------------------|------------------------|-------------------|
| Month     | Milne Inlet            | Steensby<br>Inlet | Milne Inlet | Steensby<br>Inlet   | Milne Inlet            | Steensby<br>Inlet |
| January   | -                      | -                 | -           | -                   | -                      | -                 |
| February  | -                      | -                 | -           | -                   | -                      | -                 |
| March     | -                      | -                 | -           | -                   | -                      | -                 |
| April     | -                      | -                 | -           | -                   | -                      | -                 |
| May       | -                      | -                 | -           | -                   | -                      | -                 |
| June      | -                      | -                 | -           | -                   | -                      | -                 |
| July      | -                      | -                 | -           | -                   | -                      | -                 |
| August    | 295,000                | -                 | 2,020,000   | -                   | 2,315,000              | -                 |
| September | 295,000                | -                 | 1,340,000   | -                   | 2,675,000              | -                 |
| October   | 1,340,000              | -                 | 263,000     | -                   | 1,603,000              |                   |
| November  | -                      | -                 | -           | -                   | -                      |                   |
| December  | -                      | -                 | -           | -                   | -                      | -                 |
| Total     | 1,930,000              |                   | 4,663,000   |                     | 6,593,000 <sup>1</sup> | -                 |

The total volume of ore to be shipped is within the limits of what is approved for the 2024 shipping season. Approximately 775,000 tonnes of ore was present at the Milne Port ore stockpile at the end of the 2023 shipping season.

### 4.4 SPECIFIED SUBSTANCES TO BE QUARRIED AND EXPECTED USES

A summary of the expected quantities of quarried and borrow materials to be extracted during 2024 are provided in Table 4.3, below. The expected quarterly quantities of each specified substance per quarry site and borrow location is also provided in Table 4.3, below.



Table 4-3: 2024 Quarry and Borrow Pit Quantities

| Quarry Summary | Km Location | Permitted | Q1     | 02     | 63     | 04     | Total  | Estimated Breakdown Of<br>Specified Substances |
|----------------|-------------|-----------|--------|--------|--------|--------|--------|--|
|                | UNITS       |           | m³     | m³     | m³     | m³     | m³     |  |
| Q1             | 1           | Permitted | ı      | 20,000 | 40,000 | 20,000 | 80,000 | Rock   |
| Q5             | 4           | Proposed  | -      | -      | -      | =      | -      | Rock   |
| Q7             | 7           | Permitted | -      | -      | -      | -      | -      | Rock   |
| Q11            | 21          | Permitted | -      | -      | -      | -      | -      | Rock   |
| Q19            | 93.5        | Permitted | -      | -      | -      | -      | -      | Rock   |
| QMR2           | 102         | Permitted | -      | -      | -      | -      | -      | Rock   |
| Km 2           | 2           | Permitted | -      | -      | -      | -      | -      | Granular                                       |
| Km 97          | 97          | Permitted | 15,000 | 15,000 | -      | =      | 30,000 | Granular                                       |
| Total          | -           | -         | -      | -      | -      | -      | -      | -  |

#### Notes:

<sup>1.</sup> The quantities from each source are approximate values and may vary based on minor changes to the schedule and scope, however, the aggregate volume to be extracted is expected to remain constant.

<sup>2.</sup> The final schedule for the issuance of Quarry and Borrow Source Management Plans for proposed new quarry and borrow areas is not finalized at the time the Work Plan was prepared.

<sup>3.</sup> It is noted D1Q1 and D1Q2 will also be used as a source of aggregate to support Mine Haul Road maintenance but is not considered a formal quarry as it is located in the Mining Lease and is anticipated to be within the LOM pit extent.



## 5 ANNUAL QUANTITIES OF SOLID WASTE

## 5.1 SOLID WASTE DISPOSAL

The expected annual quantity of solid wastes to be deposited during 2024 is established from survey volumes measured in 2015 through 2023, as well as an analysis of proposed activities. Estimated quantities of solid waste to be deposited in approved waste storage areas are shown in Table 5.1 below.

Table 5-1: Annual Volume of Solid Waste to be Deposited in Waste Storage Areas in 2024

| Property Section                       | Waste Storage Area | Volume of Solid Waste to be disposed of (m³) |
|--|--------------------|--|
| e.g. Milne Port/Tote<br>Road/Mine Site | -                  | -  |
| Mine Site                              | Landfill           | 10,000                                       |
|  | Total              | 10,000                                       |



#### **6** EXPECTED USES OF WATER

### 6.1 WATER USE

The Type 'A' Water Licence 2AM-MRY1325 Amendment No. 1 permits the following maximum water use for domestic and industrial purposes during construction phase of the Project, as shown in Table 6.1 below. As per Clause 22 of the QIA-Baffinland Water Compensation Agreement, Baffinland will pay a Consumptive Payment for Water Use, in connection with the Project for the maximum water volume permitted to be used or withdrawn annually as defined in the water licences issued to Baffinland by NWB.

Table 6-1: Approved Water Use for Domestic and Industrial Purposes during Construction Phase

| Property Section          | Water Source Name       | Water Source Location              | Annual Volume to be used (m³) |  |
|---------------------------|-------------------------|------------------------------------|-------------------------------|--|
| Milne Port                | Phillips Creek (Summer) | 71° 52′ 53.3″ N<br>80° 56′ 04.0″ W | 124 120 m <sup>3</sup> /voor  |  |
| (Milne Inlet)             | Km 32 (Winter)          | 71° 30′ 39.5″ N80°<br>14′ 54.4″ W  | 134,130 m³/year               |  |
| Mine Site<br>(Mary River) | Camp Lake               | 71° 19' 38.6" N<br>79° 22' 57" W   | 240,000 m³/year               |  |
| Steensby Port             | ST 347 km Lake          | N/A                                | 0 3/                          |  |
| (Steensby Inlet)          | 3 km Lake               | N/A                                | 0 m³/year                     |  |
|                           | 371,130 m³/year         |                                    |                               |  |

Source: Amendment No.1 Type 'A' Water Licence (2AM-MRY1325)

The Amendment No.1 of the Type 'A' Water Licence authorizes Baffinland to withdraw up to 1,500 m<sup>3</sup>/day to a maximum of 547,500 m<sup>3</sup> annually of water specifically for use in dust suppression or control along the Tote Road of the Project. Water for dust suppression or control shall be obtained from the sources in accordance with thresholds established and shown in Table 6-2 below.

Table 6-2: Water Use for Dust Suppression

| Duranta Cartina  | Water              | Water Sou          | rce Location    | Daily Water Take                      | Do staletiene   |  |
|------------------|--------------------|--------------------|-----------------|---------------------------------------|---|--|
| Property Section | Source<br>Name     | Latitude Longitude |                 | Proposed for Dust Suppression(m³/day) | Restrictions  |  |
| Milne Port       | Phillip's<br>Creek | 71° 52′ 53.3″ N    | 80° 56′ 04.0″ W | 212                                   | None  |  |
| Milne Port       | Km 32<br>Lake      | 71° 30′ 39.5″ N    | 80° 14′ 54.4″ W | 364                                   | None  |  |
| Tote Road        | CV128              | 71° 47′ 35.1″ N    | 80° 36′ 41.7″ W | 580                                   | None  |  |
| Tote Road        | CV099              | 71° 38′ 21.7″ N    | 80° 22′ 46.6″ W | 110                                   | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |
| Tote Road        | CV087              | 71° 34′ 10.0″ N    | 80° 19′ 41.6″ W | 90                                    | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |



|                  | Water                   | Water Sou          | rce Location    | Daily Water Take                         |   |  |
|------------------|-------------------------|--------------------|-----------------|--|---|--|
| Property Section | Source<br>Name          | Latitude Longitude |                 | Proposed for Dust<br>Suppression(m³/day) | Restrictions  |  |
| Tote Road        | CV078                   | 71° 31′ 51.9″ N    | 80° 16′ 07.8″ W | 75                                       | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |
| Tote Road        | Katiktok<br>Lake        | 71° 23′ 45.7″ N    | 79° 48′ 22.0″ W | 318                                      | None  |  |
| Tote Road        | BG50                    | 71° 26′ 29.6″ N    | 80° 10′ 27.1″ W | 150                                      | None  |  |
| Tote Road        | BG32                    | 71° 23′ 35.1″ N    | 79° 51′ 24.9″ W | 130                                      | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |
| Tote Road        | CV217                   | 71° 23′ 51.4″ N    | 79° 48′ 50.9″ W | 130                                      | None  |  |
| Tote Road        | Muriel<br>Lake          | 71° 22′ 18.5″ N    | 79° 39′ 24.3″ W | 212                                      | None  |  |
| Tote Road        | David<br>Lake           | 71° 19′ 38.6″ N    | 79° 22′ 57.0″ W | 132                                      | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |
| Tote Road        | BG17                    | 71° 21′ 19.8″ N    | 79° 34′ 44.0″ W | 75                                       | June-July only<br>during low flow<br>( <mean flow)<br="">years</mean> |  |
| Tote Road        | CV223<br>(Tom<br>River) | 71° 19′ 40.5″ N    | 79° 26′ 15.8″ W | 135                                      | None  |  |
| Mine Site        | Camp<br>Lake            | 71° 19′ 38.6″ N    | 79° 22′ 57″ W   | 86                                       | None  |  |

Source: Amendment No.1 Type 'A' Water Licence (2AM-MRY1325).



## 7 MATERIALS TO BE SHIPPED OFF THE PROPERTY

## 7.1 MATERIALS SHIPPED OUT

As required by the Lease, the expected quantities of materials planned to be shipped off site in 2024 are detailed in Table 7.1 below.

Table 7-1: Materials to be Shipped Out in 2024

| Property<br>Section          | Equipment/ Material<br>Item                   | Owner                      | Estimated Annual<br>Amount of Equipment<br>and Material (tonne) | Estimated Annual Revenue<br>Tonnes  |
|------------------------------|---|----------------------------|---|---|
| e.g. Milne<br>Port/Mine Site | Description of the equipment or the material* | e.g.<br>BIM/Third<br>Party | Estimated total annual amount of equipment and material (tonne) | Estimated amount of revenue<br>tonnes assigned to the<br>shipping of equipment or<br>material |
| Milne Port                   | Batteries                                     | BIMC                       | 83  | 83  |
| Milne Port                   | Hydrocarbon<br>Contaminated Material          | BIMC                       | 191   | 191   |
| Milne Port                   | Waste Oil                                     | BIMC                       | 1150  | 1150  |
| Milne Port                   | Waste Fuels                                   | BIMC                       | 85  | 85  |
| Milne Port                   | Waste Grease                                  | BIMC                       | 30  | 30  |
| Milne Port                   | Waste Hazardous<br>Liquids                    | BIMC                       | 373   | 373   |
| Milne Port                   | Waste Aerosol<br>Canisters                    | BIMC                       | 2.4   | 2.4   |
| Milne Port                   | Contaminated<br>Containers/Solids             | BIMC                       | 297   | 297   |
| Milne Port                   | Misc Hazardous<br>Materials                   | ВІМС                       | 233   | 233   |

#### Note:

For hazardous waste assumptions used in the calculation of the quantity of generated hazardous waste for the Project, please refer to the Waste Management Plan (BAF-PH1-830-P16-0028).



#### 8 MATERIALS TO BE SHIPPED TO THE PROPERTY

#### 8.1 DELIVERY OF FUEL

At least two bulk fuel deliveries will occur during the 2024 sealift to support Baffinland's current operations. At the onset of the shipping season, arctic diesel and Jet A fuel will be delivered to fill the tanks at the Milne Port tank farm.

The anticipated fuel delivery provided in the below Table 8.1.

Table 8-1: Anticipated Fuel Delivery During 2024

|                          | Diesel | Jet A  |
|--------------------------|--------|--------|
| Total Bulk Fuel Delivery | 63 ML  | 2.2 ML |

## 8.2 MATERIALS SHIPPED TO THE PROPERTY (CURRENT OPERATION)

Materials, equipment, supplies, buildings and machinery to support construction and operations through 2024 will arrive on the 2024 sea lift include the following items provided below in Table 8-2.

Table 8-2: Mobile and Mechanical Equipment to be Received During 2024 (Current Operation)

| Property<br>Section             | Material Item                | Owner      | Quantity   | Revenue<br>Tonne   |
|---------------------------------|------------------------------|------------|--|--|
| e.g. Milne Port or<br>Mine Site | Description of the material* |            | Quantity of the<br>material to be<br>shipped to and<br>stored on the<br>Property (including<br>unit of<br>measurement) | Estimated amount<br>of revenue tonnes<br>(mt) assigned to<br>the shipping of<br>material |
| Mine Site                       | Large Water Pump             | Baffinland | 2  | 2  |
| Mine Site                       | 15,000 L Bulk Fuel Tank      | Baffinland | 2  | 30   |
| Mine Site                       | Fuel Tanker                  | Baffinland | 1  | 20   |
| Mine Site                       | Mobile Stacker               | Baffinland | 1  | 20   |

Additional supplies to support construction and operations through 2024 that will arrive on the 2024 sea lift include:

- Delivery of ammonium nitrate (AN), up to 3,100,000 kg to be delivered to Milne Port and stored on-site in 2024;
- Delivery of maintenance parts; and
- Delivery of consumables (lubricants, grease, detergents, boosters, EZ Dets, dry goods, food, household supplies, etc.).



## 9 UPDATES TO ITEMS CONTAINED IN THE SCHEDULES OF THE LEASE

## 9.1 UPDATES TO THE EMERGENCY RESPONSE PLAN

In accordance with Clause 5.1 item H of the existing Commercial Lease Q13C031, the applicable Emergency Response Plan BAF-PH1-830-P16-0007 and Spill Contingency Plan BAF-PH1-830-P16-0036 have been provided in Appendices of this Work Plan. Please refer to Section 11 for location and details.

## 9.2 UPDATES TO ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS

All updated Environmental Management and Monitoring Plans were submitted in March 2023 with the Annual Reports. An extensive list of the current plans for the project is presented in Table 9.1 below.

**Table 9-1: Environmental Monitoring and Management Plans** 

| Document Number      | Plan Name   | Current<br>Revision Date |
|----------------------|---|--------------------------|
| BAF-PH1-300-P16-0002 | Snow Management Plan  | Mar-23                   |
| BAF-PH1-830-P16-0001 | Surface Water Sampling Program - Quality Assurance and Quality Control Plan | Mar-22                   |
| BAF-PH1-830-P16-0002 | Air Quality and Noise Abatement Management Plan                             | Apr-21                   |
| BAF-PH1-830-P16-0004 | Borrow Pit and Quarry Management Plan                                       | Mar-14                   |
| BAF-PH1-830-P16-0006 | Cultural Heritage Resource Protection Plan                                  | Mar-16                   |
| BAF-PH1-830-P16-0008 | Environmental Protection Plan   | Apr-21                   |
| BAF-PH1-830-P16-0010 | Fresh Water Supply, Sewage and Wastewater Management Plan                   | Mar-23                   |
| BAF-PH1-830-P16-0011 | Hazardous Materials and Hazardous Waste Management Plan                     | Mar-22                   |
| BAF-PH1-830-P16-0012 | Interim Closure and Reclamation Plan  | Oct-18                   |
| BAF-PH1-830-P16-0013 | Oil Pollution Emergency Plan - Milne Inlet (OPEP)                           | May-22                   |
| BAF-PH1-830-P16-0017 | Q1 Quarry Management Plan   | Feb-22                   |
| BAF-PH1-830-P16-0023 | Roads Management Plan   | Feb-20                   |
| BAF-PH1-830-P16-0024 | Shipping and Marine Wildlife Management Plan                                | July-22                  |
| BAF-PH1-830-P16-0025 | Community and Stakeholder Engagement Plan                                   | Mar-16                   |
| BAF-PH1-830-P16-0026 | Surface Water and Aquatic Ecosystems Management Plan                        | Mar-21                   |
| BAF-PH1-830-P16-0027 | Terrestrial Environmental Management and Monitoring Plan                    | Mar-16                   |
| BAF-PH1-830-P16-0028 | Waste Management Plan   | Mar-23                   |
| BAF-PH1-830-P16-0029 | Phase 1 Waste Rock Management Plan  | June-20                  |
| BAF-PH1-830-P16-0030 | Borrow Source Management Plan – Kilometre 2                                 | Oct-14                   |
| BAF-PH1-830-P16-0031 | Life of Mine Waste Rock Management Plan                                     | Apr-14                   |
| BAF-PH1-830-P16-0032 | Borrow Source Management Plan - Kilometre 97                                | Oct-14                   |
| BAF-PH1-830-P16-0035 | Borrow Source Management Plan - Kilometre 104                               | Mar-14                   |
| BAF-PH1-830-P16-0036 | Spill Contingency Plan  | Feb-21                   |
| BAF-PH1-830-P16-0037 | Exploration Spill Contingency Plan  | Jan-21                   |
| BAF-PH1-830-P16-0038 | Exploration Closure and Reclamation Plan                                    | Jan-21                   |
| BAF-PH1-830-P16-0039 | Aquatic Effects Monitoring Plan   | Mar-22                   |



| Document Number          | Plan Name   | Current<br>Revision Date |
|--------------------------|---|--------------------------|
| BAF-PH1-830-P16-0040     | QMR2 Quarry Management Plan                           | Jul-21                   |
| BAF-PH1-830-P16-0041     | Polar Bear Safety Plan                                | Mar-16                   |
| BAF-PH1-830-P16-0042     | Spill at Sea Response Plan                            | Aug-15                   |
| BAF-PH1-830-P16-0046     | Marine Environmental Effects Monitoring Plan          | Mar-16                   |
| BAF-PH1-830-P16-0047     | MDMER Emergency Response Plan                         | Mar-23                   |
| BAF-PH1-830-P16-0050     | Ballast Water Management Plan                         | Mar-19                   |
| BAF-PH1-830-P16-0056     | Diesel Environmental Emergency (E2) Plan - Milne Port | Feb-20                   |
| BAF-PH1-830-P16-0057     | Diesel Environmental Emergency (E2) Plan – Mine Site  | Feb-20                   |
| BAF-PH1-830-P16-0058     | Oil Pollution Prevention Plan - Milne Inlet (OPEP)    | May-21                   |
| BAF-PH1-840-P16-0002     | Emergency Response Plan                               | Dec-20                   |
| H349000-3000-07-245-0001 | Q7 Quarry Management Plan                             | Oct-13                   |
| H349000-3000-07-245-0002 | Q11 Quarry Management Plan                            | Oct-13                   |
| H349000-3000-07-245-0003 | Q19 Quarry Management Plan                            | Oct-13                   |
| H349000-4200-07-245-0001 | D1Q1 Quarry Management Plan                           | Oct-13                   |
| H349000-4200-07-245-0002 | D1Q2 Quarry Management Plan                           | Oct-13                   |

#### Notes:

- 1 Discontinued and incorporated into the March 2014 Borrow Pits and Quarry Management Plan.
- 2 The Explosives Management Plan is a contractor document.

A copy of Baffinland's Environmental Management Plans are available on the document web portal: <a href="https://www.baffinland.com/media-centre/document-portal/">https://www.baffinland.com/media-centre/document-portal/</a>.

## 9.3 PROPOSED UPDATES TO THE INTERIM CLOSURE AND RECLAMATION PLAN

The Interim Closure and Reclamation Plan (ICRP) was updated in 2018 (Revision 5, 30 October 2018) and conditionally approved by QIA, and has been provided as an appendix to this Work Plan. Baffinland notes concerns regarding the generation of acid rock drainage (ARD) and metal leaching (ML) rasied by CIRNAC in their review of Revision 5 of the ICRP, however, these concerns were addressed separately through the revised Phase 1 Waste Rock Management Plan issued in June 2020 and approved by the NWB on August 17, 2020. Baffinland is currently planning a comprehensive review working towards the submission of another revision to the Phase 1 Waste Rock Management Plan for issuance by December 31, 2023. This plan will include updates based on the most current thermal modelling and other information. It is believed the ICRPwill require an update to reflect the revised Phase 1 Waste Rock Management Plan. TheThe ICRP is intended to be an iterative document that will evolve over the life of the mine and Baffinland is proposing to undertake this process in 2024 to reflect updates neccessery to address improvements in waste rock management, as well as to address outstanding issues between Baffinland, QIA and CIRNAC with respect to the annual ASR process. It is recognized that QIA, as the land owner, will provide valuable input and approval of future versions of the ICRP, including the incorporation of Inuit Qaujimajatuqangit into closure objectives and criteria.



#### 9.4 TOTAL CLOSURE AND RECLAMATION SECURITY SUMMARY – 2024 WORK PLAN

The provision of additional securities for the 2024 Work Plan is summarized in Table 9.2 and Table 9.3 below. In Table 9.3, the security is divided by key authorizations. A summary of the security details for each authorization type is described below.

### Type A 2AM-MRY1325

The Type A Water Licence issued by the NWB requires the completion of the ASR. The detailed security amounts are provided within this Work Plan. The security relating to IOL is held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301. The Crown Land security is held by CIRNAC. Most of the security liability is within land liability. In 2024, the water liability costs are driven by two activities: the fuel tank remediation and the QMR2 sedimentation pond reclamation.

### Type B Exploration 2BE-MRY2131

The security posted under the Type B Exploration Licence is issued as per Mary River Exploration Project Closure and Reclamation Plan (BAF-PH1-830-P16-0038, Rev 1).

## **DFO Security Associated with Freight Dock**

Baffinland Iron Mines Corporation (Baffinland) was issued Paragraph 35(2)(b) *Fisheries Act* Authorization 18-HCAA-00160 on March 21, 2019, for the construction of a Freight Dock at Baffinland's Milne Port site. Baffinland submitted an application to amend this Authorization on March 3, 2023 to allow for construction of additional habitat offsetting at Milne Port to meet the requirements of the Authorization.

At the time of the original issuance, four letters of credit were provided to Fisheries and Oceans Canada (DFO), with a total value of \$4,250,000. The amounts and status of the letters of credits issued for the Freight Dock are listed in Table 9.4 below.

Table 9-4: 2023 Status of DFO Letters of Credit Issued for the Construction of Freight Dock at Milne Port

| Authorization<br>Seciton | Item   | Amount (\$) | Status  |
|--------------------------|--|-------------|---|
| 6.1.1                    | Implementation of offsetting measures                  | 3,000,000   | \$2,800,000 returned in 2023<br>\$200,000 still posted with DFO |
| 6.1.2                    | Implementation of monitoring                           | 500,000     | LoC posted with DFO   |
| 6.1.3                    | Implementation of offsetting monitoring plan           | 250,000     | LoC fully returned in 2023                                      |
| 6.1.4                    | Development and implementation of contingency measures | 500,000     | LoC posted with DFO   |





## AANDC Land Lease 47H/16-1-2

The security posted under the AANDC land lease is aligned with the Closure and Reclamation Strategy and Financial Security Estimate for Nunavut Lease #47H/16-1-2 (H349001-2000-07-126-0001, Rev.0).



Table 9-2: Capital Cost Estimate by WBS Level 3 for 2024 Work Plan Marginal Increase with 2023 Reconciliation

| WBS CODE - DESCRIPTION   | TOTAL COST<br>(\$) | IOL LIABILITY<br>TOTAL COST<br>(\$) | CROWN<br>LIABILITY<br>TOTAL COST<br>(\$) | WATER LIABILITY TOTAL COST (\$) | LAND LIABILITY<br>TOTAL COST<br>(\$) |
|--|--------------------|-------------------------------------|--|---------------------------------|--------------------------------------|
| DIRECT CONSTRUCTION COSTS  |                    |                                     |  |                                 |                                      |
| TOTAL DIRECT CONSTRUCTION COST   | 1,716,176          | 1,711,408                           | 4,768                                    | 355,471                         | 1,360,705                            |
| MS-P-FAC-001 - ADDITIONAL SNOW STOCKPILE AREA  | 40,708             | 40,708                              |  |                                 | 40,708                               |
| MS-P-FAC-002 - EXPANSION OF KM 106 STOCKPILE PAD FOR WATER TRUCK   | 3,443              | 3,443                               |  |                                 | 3,443                                |
| MS-P-FAC-003 - 15,000 L JET A TANK AND BERM  | 21,223             | 21,223                              |  | 21,223                          |                                      |
| MS-P-FEN-001 - FENCING AT MARY RIVER AERODROME   | 45,062             | 45,062                              |  |                                 | 45,062                               |
| MS-P-LAY-005 — LAYDOWN AREA AT THE MINE SITE FOR TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS  | 207,899            | 207,899                             |  |                                 | 207,899                              |
| MS-P-WM-001 - QMR2 QUARRY SEDIMENTATION POND   | 334,248            | 334,248                             |  | 334,248                         |                                      |
| MS-P-WR-001 — LEVELING AND GRADING WITHIN FOOTPRINT OF FUTURE WASTE ROCK FACILITY EXPANSION TO SUPPORT GEOTECHNICAL INVESTIGATION WORK | 767,782            | 767,782                             |  |                                 | 767,782                              |
| TR-P-CUL-001 - REPLACEMENT OF CULVERTS AT FISH-BEARING STREAMS ALONG MILNE INLET TOTE ROAD   | 71,026             | 66,258                              | 4,768                                    |                                 | 71,026                               |
| GEN-MEQ-001 - MOBILE EQUIPMENT   | 35,698             | 35,698                              |  |                                 | 35,698                               |
| GEN-SEA-001 - SEA CANS   | 189,087            | 189,087                             |  |                                 | 189,087                              |
| DIRECT CONSTRUCTION INDIRECT FIELD SUPPORT COSTS   |                    |                                     |  |                                 |                                      |
| DC - DIRECT CONSTRUCTION INDIRECT FIELD SUPPORT COSTS  | 352,675            | 351,838                             | 837                                      | 77,459                          | 275,216                              |
| DC-FS-001 - INTERIM CARE AND MAINTENANCE   |                    |                                     |  |                                 |                                      |
| DC-FS-002 - CONTRACTOR MOBILIZATION AND DEMOBILIZATION   |                    |                                     |  |                                 |                                      |
| DC-FS-003 - CONSTRUCTION FACILITIES  | 25,850             | 25,786                              | 64                                       | 5,605                           | 20,245                               |
| DC-FS-004 - GENERAL CONSTRUCTION EQUIPMENT   | 28,000             | 28,000                              |  | 8,205                           | 19,795                               |



| WBS CODE - DESCRIPTION  | TOTAL COST<br>(\$) | IOL LIABILITY<br>TOTAL COST<br>(\$) | CROWN<br>LIABILITY<br>TOTAL COST<br>(\$) | WATER LIABILITY TOTAL COST (\$) | LAND LIABILITY<br>TOTAL COST<br>(\$) |
|---|--------------------|-------------------------------------|--|---------------------------------|--------------------------------------|
| DC-FS-005 - SCAFFOLDING   |                    |                                     |  |                                 |                                      |
| DC-FS-006 - CONTRACTOR SUPPLIED THIRD PARTY EXPERTISE (TESTING / SURVEY / SAFETY / ENGINEERING) | 65,025             | 64,838                              | 187                                      | 13,258                          | 51,767                               |
| DC-FS-007 - CONTRACTOR CONSTRUCTION MANAGEMENT AND SUPPORT TEAM                                 | 231,000            | 230,414                             | 586                                      | 49,570                          | 181,430                              |
| DC-FS-008 - CONTRACTOR DISTRIBUTABLE COSTS  | 2,800              | 2,800                               |  | 821                             | 1,979                                |
| INDIRECT COSTS  |                    |                                     |  |                                 |                                      |
| ID - INDIRECT COSTS   | 420,901            | 419,779                             | 1,121                                    | 89,381                          | 331,519                              |
| ID-ID-001 - MOBILIZATION / DEMOBILIZATION FREIGHT   | 1,015              | 1,015                               |  | 1,015                           |                                      |
| ID-ID-002 - FLIGHTS, CAMP, AND CATERING   | 213,000            | 212,439                             | 561                                      | 45,073                          | 167,927                              |
| ID-ID-003 - POST CLOSURE MONITORING AND MAINTENANCE   |                    |                                     |  |                                 |                                      |
| ID-ID-004 - ENGINEERING AND DESIGN  | 103,443            | 103,162                             | 280                                      | 21,646                          | 81,796                               |
| ID-ID-005 - PROJECT MANAGEMENT  | 77,582             | 77,372                              | 210                                      | 16,235                          | 61,347                               |
| ID-ID-006 - PROCUREMENT AND CONTRACT MANAGEMENT   | 25,861             | 25,791                              | 70                                       | 5,412                           | 20,449                               |
| ID-ID-007 - HEALTH AND SAFETY PLANS / MONITORING AND QUALITY ASSURANCE                          |                    |                                     |  |                                 |                                      |
| ID-ID-008 - BONDING / INSURANCE   |                    |                                     |  |                                 |                                      |
| PROVISIONAL COSTS   |                    |                                     |  |                                 |                                      |
| PR - PROVISIONAL COSTS  | 497,950            | 496,601                             | 1,349                                    | 104,202                         | 393,749                              |
| PR-CNT-001 - CONTINGENCY  | 497,950            | 496,601                             | 1,349                                    | 104,202                         | 393,749                              |
| GRAND TOTAL COST  | 2,987,701          | 2,979,625                           | 8,076                                    | 626,512                         | 2,361,189                            |



Table 9-3: Mary River Project 'Global' Closure and Reclamation Security Summary – 2024 Work Plan

|    | Α                               | В                | С  | D  | E   | F                               | G                                  |
|----|---------------------------------|------------------|--|--|---|---------------------------------|------------------------------------|
|    | Authorization                   | Liability        | 2024 Marginal<br>Estimate,<br>Including 2023<br>Reconciliation | 2022 Global<br>Security<br>Estimate,<br>Including 2023<br>Reconciliation | Total 'Global'<br>Estimated<br>Security for<br>2024 | Total Posted as<br>of Jan. 2023 | Marginal Adjustment to be Posted 5 |
|    |                                 |                  | (\$)   | (\$)   | (\$)  | (\$)                            | (\$)                               |
|    |                                 |                  |  |  |   |                                 | E-F                                |
| 1  |                                 | IOL <sup>2</sup> | 2,979,626  | 102,580,704  | 105,560,330   | 120,999,500                     | -15,439,170                        |
| 2  | Type A 2AM-                     | Crown            | 8,075  | 2,231,269  | 2,239,344   | 2,788,000                       | -548,656                           |
| 3  | MRY1325                         | Water            | 626,513  | 2,127,917  | 2,754,430   |                                 |                                    |
| 4  |                                 | Land             | 2,361,189  | 102,774,056  | 105,135,245   |                                 |                                    |
| 5  | Subtotal Type A                 |                  | 2,987,702  | 104,811,973  | 107,799,674   | 123,787,500                     | -15,987,826                        |
| 6  |                                 | IOL              |  |  | 165,000   |                                 | 165,000                            |
| 7  | Type B<br>Exploration           | Crown            |  |  | 1,082,000   | 1,250,000                       | -168,000                           |
| 8  | 2BE-MRY2131 <sup>3</sup>        | Water            |  |  | 18,000  |                                 | 18,000                             |
| 9  |                                 | Land             |  |  | 1,229,000   |                                 | 1,229,000                          |
| 10 | Subtotal Type B Exploration     |                  |  |  | 1,247,000   | 1,247,000                       | 1,250,000                          |
| 11 |                                 | IOL <sup>2</sup> |  |  |   | -                               |                                    |
| 12 | DFO Security                    | Crown            |  |  | 1,200,000   | 4,250,000                       | -3,050,000                         |
| 13 | Associated with<br>Freight Dock | Water            |  |  | 1,200,000   | 4,250,000                       | -3,050,000                         |
| 14 | c.g c Dock                      | Land             |  |  |   | -                               |                                    |
| 15 | Subtotal DFO                    |                  |  |  | 1,200,000   | 4,250,000                       | -3,050,000                         |
| 16 | AANDC Land                      | IOL <sup>2</sup> |  |  |   | -                               |                                    |
| 17 | Lease 47H/16-                   | Crown            |  |  | 4,975,000   | 4,975,000                       |                                    |
| 18 | 1-2 4                           | Water            |  |  |   | -                               |                                    |





|    | Α                         | В         | С  | D  | E   | F                               | G   |
|----|---------------------------|-----------|--|--|---|---------------------------------|---|
|    | Authorization             | Liability | 2024 Marginal<br>Estimate,<br>Including 2023<br>Reconciliation | 2022 Global Security Estimate, Including 2023 Reconciliation | Total 'Global'<br>Estimated<br>Security for<br>2024 | Total Posted as<br>of Jan. 2023 | Marginal<br>Adjustment to<br>be Posted <sup>5</sup> |
|    |                           |           | (\$)   | (\$)   | (\$)  | (\$)                            | (\$)  |
|    |                           |           |  |  |   |                                 | E-F   |
| 19 |                           | Land      |  |  | 4,975,000   | 4,975,000                       |   |
| 20 | Subtotal AANDC L<br>Lease | Land      |  |  | 4,975,000   | 4,975,000                       | 0   |
| 21 | GRAND TOTAL               |           | 2,987,701  | 104,811,973  | 115,271,674   | 134,262,500                     | -19,040,826   |

#### NOTES:

- 1) Totals in CAD
- 2) Security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C3O1
- 3) As per Mary River Exploration Project Closure and Reclamation Plan (BAF-PH1-830-P16-0038, Rev 1)
- 4) As per Closure and Reclamation Strategy and Financial Security Estimate for Nunavut Lease #47H/16-1-2 (H349001-2000-07-126-0001, Rev.0)
- 5) Marginal Adjustment to be posted due to 2024 Work Plan



## 10 REQUESTED AMENDMENTS TO THE PROVISIONS OF THE LEASE

The Option Exercise Notice (OEN) for expansion of the Commercial Lease boundary for a realignment of the future Steensby Railway is included in Appendix G.

Additional Tote Road Adjustment Notices (TRANs) and OENs may be submitted as per Table 3.1, throughout 2024. It is noted that per the Commercial Lease, review of OENs and TRANs outside of the Work Plan will require an associated fee for review.



# 11 ADDITIONAL REPORTS, INFORMATION OR DATA

Additional reports, information or data required to support the 2024 Work Plan are summarized in Table 11.1 below.

Table 11-1: Additional Reports, Information or Data

| Title   | Organization  | Date  | Annex   |
|---|---|---|---|
| Identify the title of the additional report, information or data to be included with the Annual Work Plan.  | Disclose the name of the organization that produced the addition report, information or data. | Include the publish date or reference year to the additional report, information or data. | Identify the Annex<br>letter/number<br>corresponding to the<br>additional report,<br>information or data. |
| Details of Marginal Adjustment to 2022 Global Estimate Value  • KM 105 Dam and Sedimentation Pond - Closure Concept and Reclamation Security Memorandum | Baffinland  | August 15, 2023<br>December 1, 2023   | Appendix A  |
| Work Plan Figures  Milne Port  Mine Site  Tote Road   | Baffinland  | December 1, 2023  | Appendix B  |
| Basis of Estimate - Baffinland Iron Mines Mary River<br>Project 2023 and 2024 Security Update   | Nunami Stantec<br>Limited   | November 29, 2023   | Appendix C  |
| Interim Closure and Reclamation Plan  | Baffinland  | BAF-PH1-830-P16-0012  | Appendix D  |
| Emergency Response Plan   | Baffinland  | BAF-PH1-830-P16-0007  | Appendix E  |
| Spill Contingency Plan  | Baffinland  | BAF-PH1-830-P16-0036  | Appendix F  |
| Option Exercise Notice for Steensby Railway<br>Realignment  | Baffinland  | November 30, 2023   | Appendix G  |



## **APPENDIX A**

DETAILS OF MARGINAL ADJUSTMENT TO 2022 GLOBAL ESTIMATE VALUE



Appendix A – Details of Marginal Adjustment to 2022 Global Estimate Value (Updated from August 2023 letter from Baffinland to NWB)

| Item No.   | Property Section            | Land Use<br>Area | Approximate Location   | Description   | Description of Effect on Feature(s)  | Associated Cost | Anticipated Completion<br>Year                     |
|------------|-----------------------------|------------------|--|---|--|-----------------|--|
| Scope of V | Vork Included in the 2023   | Work Plan to     | be Reconciled in the 2023 Glob   | al Estimate   |  |                 |  |
| 2023-1     | Mine Site                   | Impact<br>Area   | (A) N7912740 E562483<br>(B) N7912825 E562090   | Water treatment plant for km 105 sedimentation pond   | Direct costs for installation of water treatment plant at km 105, from 2023 Work Plan, Appendix B, Section 3.3.1.5 | \$69,950        | 2023   |
| Scope of V | Vork Previously Approved    | and Security     | Posted Removed from the Curr   | ent Scope of the Project  |  |                 |  |
| 2022-3     | Mine Site                   | Impact<br>Area   | (A) N7912740 E562483<br>(B) N7912825 E562090   | Expansion to KM 105 Equipment Laydown east (27,509 m2) and west (36,332 m2)   | Leveling and grading within PDA  | -\$360,855      | Removed from estimate, deferred to a later date    |
| 2022-5     | Mine Site                   | Impact<br>Area   | N7915327 E563264   | New Fuel tank (250,000L) to be mobilized on existing pad KM110.5.   | Leveling and grading within PDA  | -\$9,427        | No longer required                                 |
| 2022-6     | Mine Site                   | Impact<br>Area   | (A) N7914411 E562618<br>(B) N7914082 E563981<br>(C) N7914060 E563600<br>(D) N7915942 E563665 | Construction of a West perimeter road to bypass pit (74,577 m2), 510 Hillside Road (11,423 m2), 470 Hillside Road (2,429 m2) and Bypass road from cross-cut road towards waste dump(24,534 m2). | Leveling and grading within PDA  | -\$188,077      | Removed from estimate,<br>deferred to a later date |
| 2022-14    | Mine Site                   | Impact<br>Area   | N7913383 E560600   | Construction of a new COVID-19 PCR testing lab building at the Mine Site.   | No effect, will occur on developed laydown within PDA  | -\$1,431        | No longer required                                 |
| 2022-16    | Mine Site                   | Impact<br>Area   | N7916685 E563277   | Expansion to the Water Treatment Plant Pad (10,500 m2)  | Minor leveling and grading within PDA  | -\$17,498       | Removed from estimate, deferred to a later date    |
| 2022-17    | Milne Port and Mine<br>Site | Impact<br>Area   | (A) Mine Site - N7915165<br>E556824<br>(B) Milne Port - N7973585<br>E504524                  | Enhancement of training grounds for the Emergency Response Team with fire retardent infrastructure and secondary spill containment.   | Minor leveling and grading within PDA  | -\$3,179        | Removed from estimate,<br>deferred to a later date |
| 2022-18    | Milne Port and Mine<br>Site | Impact<br>Area   | (A) Mine Site - N7914557<br>E558095<br>(B) Milne Port - N7976001<br>E503826                  | Addition of offices/ trailers at the Environment Department work areas.   | No effect, will occur on developed laydown within PDA  | -\$2,980        | Removed from estimate,<br>deferred to a later date |
| 2022-20    | Mine Site / Milne Port      | Impact<br>Area   | N7914347 E558102   | Construction of new Sedimentation Pond Camp Lake (10,000 m2) - lined  | Leveling and grading within PDA  | -\$47,734       | No longer required                                 |
| 2021-2     | Milne Port                  | Impact<br>Area   | N7975847 E503630   | Construction of new warehouse facility (seacan tent structure) on laydown LP2 x 1127 m2   | No effect, will be placed on developed laydown within PDA  | -\$155,299      | No longer required                                 |
| 2021-3     | Milne Port                  | Impact<br>Area   | N7976579 E503313   | Construction of offices and workshops at the stockpile and shiploader (x 208 m2)  | No effect, will be placed on developed laydown within PDA  | -\$28,604       | Removed from estimate, deferred to a later date    |
| 2021-5     | Mine Site                   | Impact<br>Area   | (A) Mine Site - N7914254<br>E559146<br>(B) Milne Port - N7975987<br>E503795                  | Construction of one (1) quonset hut structure at the aerodrome, and one (1) quonset hut structure adjacent to the Milne Port Fire Hall for emergency equipment storage. (assumed each 100 m2)   | No effect, will be placed on developed laydown within PDA  | -\$12,026       | Removed from estimate,<br>deferred to a later date |
| 2021-12    | Mine Site                   | Impact<br>Area   | N7913305 E560832   | Relocation of the Mine Site Complex (MSC) sewage treatment plant to be in line with the Sailiivik Camp sewage treatment plant.  | No effect, will be placed on developed laydown within PDA  | -\$1,333        | Removed from estimate,<br>deferred to a later date |
| 2021-13    | Milne Port                  | Impact<br>Area   | N7976464 E504126   | Desalination Plant  | No effect, will be placed on developed laydown within PDA  | -\$10,287       | Removed from estimate,<br>deferred to a later date |



| Item No.     | Property Section | Land Use<br>Area | Approximate Location                           | Description   | Description of Effect on Feature(s)                       | Associated Cost | Anticipated Completion<br>Year   |
|--------------|------------------|------------------|--|---|---|-----------------|--|
| 2021-16      | Mine Site        | Impact<br>Area   | N7913479 E561406                               | Expansion of MSC laydown for vehicle parking (5,243 m2).  | Leveling and grading within PDA                           | -\$9,575        | Removed from estimate, deferred to a later date  |
| 2020-1       | Mine Site        | Impact<br>Area   | N7913348 E561121                               | Installation of fuel line and associated piping between the mine site fuel storage areas and gensets. Total of 250m pipe.   | Minor leveling and grading within PDA.                    | -\$14,907       | Removed from estimate, deferred to a later date  |
| 2020-2       | Mine Site        | Impact<br>area   | N7913321 E560631                               | Installation of a mine dry facility at the Sailivik Camp.   | No effect, will be placed on developed laydown within PDA | -\$64,159       | Removed from estimate, deferred to a later date  |
| 2020-10      | Mine Site        | Impact<br>Area   | N7914047 E559584                               | Expansion of the warehouse laydown area for additional storage of seacans and equipment. Total area of 3,200 m <sup>2</sup> .   | Leveling and grading within PDA                           | -\$5,333        | Removed from estimate, deferred to a later date  |
| 2019-1-<br>A | Milne Port       | Impact<br>area   | (A) Q1 - N7974810 E503970                      | Development of quarry Q1  | Leveling and grading within PDA and Tote Road             | -\$376,613      | No longer required   |
| 2019-1-E     | Tote Road        | Impact<br>Area   | (E) PQ6A - N7929733 E528240<br>(194,000 m2)    | Development and expansion of quarries, consisting of; four (4) new quarries along the Tote Road with 8m wide access roads, expansion of previously proposed but not constructed quarry Q5, and expansion of the working limits of existing quarry Q1.   | Leveling and grading within PDA and Tote Road             | -\$323,288      | No longer required   |
| 2019-2-C     | Tote Road        | Impact<br>Area   | (C) Laydown 9 -N7929681<br>E527833 (92,500 m2) | Development of six (6) laydowns adjacent to the existing Tote Road for material stockpiling and storage. The laydowns will be constructed by filling directly over undisturbed ground and 31m away from the high water mark of local waterbodies. The laydowns will be constructed of 500 mm thickness quarried rock with granular surfacing, free draining to appropriate ditches and water courses. All laydowns to cover approximately 2 ha, with one laydown at km 7 laydown covering approximately 7.5 ha. | Leveling and grading within PDA                           | -\$154,007      | No longer required   |
| 2019-6       | Milne Port       | Impact<br>Area   | N7975763 E502984 (155,000 m2)                  | Expansion of the Milne Port Ore Stockpile and water management facilities to optimize stockpiling and shiploading operations, resulting in additional 140,000 m2 of stockpile area and 15,000 m2 lined sedimentation pond.  | Leveling and grading within PDA                           | -\$304,902      | Stockpile expansion has been partially completed, further expansion deferred to later date |
| 2019-7       | Milne Port       | Impact<br>Area   | N7974938 E503109 (6,000 m2)                    | Construction of berm and linear steel support structure on laydown LP3 for receipt and storage of stacker/reclaimer equipment. Berm dimensions are 200m x 30m x 2m, constructed on existing disturbed area.   | No effect, will occur on developed laydown within PDA     | -\$9,999        | No longer required   |
| 2019-8       | Milne Port       | Impact<br>Area   | N7976033 E503590 (4,180<br>m2)                 | Construction of new warehouse facility (seacan tent structure) on laydown LP2 x 1127 m2   | No effect, will occur on developed laydown within PDA     | -\$17,209       | No longer required   |



| Item No. | Property Section | Land Use<br>Area | Approximate Location         | Description   | Description of Effect on Feature(s)                   | Associated Cost | Anticipated Completion<br>Year                     |
|----------|------------------|------------------|------------------------------|---|---|-----------------|--|
| 2019-12  | Mine Site        | Impact<br>Area   | N7914015 E564007 (91,000 m2) | Laydown area for parking and equipment storage at Km 107.5.   | Leveling and grading within PDA                       | -\$151,645      | Removed from estimate, deferred to a later date    |
| 2019-16  | Mine Site        | Impact<br>Area   | N7913450 E560450 (12,000 m2) | Expansion of the 800 person camp pad to the north by approximately 12,000 m <sup>2</sup> to accommodate additional support offices and buildings.                       | Leveling and grading within PDA                       | -\$19,997       | Removed from estimate,<br>deferred to a later date |
| 2019-17  | Mine Site        | Impact<br>Area   | N7913450 E560450 (925 m2)    | Addition of offices/trailers/buildings at the 800p Camp. Total footprint is 925 m², including approximately 500 m² for a new fire hall and emergency response building. | No effect, will occur on developed laydown within PDA | -\$76,189       | Removed from estimate,<br>deferred to a later date |
| 2019-25  | Milne Port       | Impact<br>Area   | N7976389 E503422 (4,400 m2)  | Installation of East Sedimentation Pond Expansion (2a) approved with Modification No. 9, but for which security has not been allocated.                                 | Leveling and grading within PDA                       | -\$21,003       | Removed from estimate,<br>deferred to a later date |
| 2018-28  | Milne Port       | Impact<br>Area   | N7976491 E504122             | Marine manifold building relocation - moving from current location north of fuel tank farm to upgraded freight dock location  | Positive effect. Reduced environmental spill risk.    | -\$44,721       | No longer required                                 |
|          |                  | •                |                              | ·   | SUBTOTAL RECONCILIATION (Direct Costs)                | -\$1,185,844    |  |
|          |                  |                  |                              |   | Indirect Costs (66% of Direct Costs)                  | -\$782,657      |  |
|          |                  |                  |                              |   | TOTAL RECONCILIATION                                  | -\$1,968,501    |  |



Date: December 1, 2023

Re: KM 105 Dam and Sedimentation Pond - Closure Concept and Reclamation Security

### Introduction

To better understand closure requirements and reclamation security for the KM 105 Dam and Sedimentation Pond, Baffinland Iron Mines (Baffinland) retained Knight Piésold (KP) Consulting to develop a closure concept and provide the estimated materials and quantities that would be involved in the closure of the KM 105 Dam and Sedimentation Pond. This closure concept is included as Attachment 1.

### Closure Costs Included in 2023 Work Plan

Using the KP closure concept and estimated material quantities, closure costs for the Dam and Pond were included in the 2023 Marginal Closure and Reclamation Financial Security Estimate, Revision 0 (submitted December 15, 2022). Section 2.3 'KM 105 Sedimentation Pond' in this document stated:

Baffinland reviewed the quantity in the EBS for removal of the structures and determined that additional security was required above the grading and recontouring allocated for this area.

The 2023 Work Plan Security Estimate allocates an additional \$254,564 in direct costs to account for the closure activities associated with the KM105 Sedimentation Pond. This includes construction of a diversion ditch to divert the upper portion of the Mine Haul Road to the open pit, breaching of the northwest embankment of the KM105 Sedimentation Pond to restore natural drainage, and placement of an erosion protection layer. Table 0-1 provides the estimated materials and quantities for the closure of the KM105 Sedimentation Pond.

Table 0-1: KM105 Sedimentation Pond Estimated Materials and Quantities for Closure

| <i>Earthworks</i>   | Unit                  | Quantity |
|---|-----------------------|----------|
| Excavate and Stockpile Granular Material                                    |                       |          |
| Excavate and Stockpile - Rockfill Material                                  | m³                    | 44,000   |
| Excavate and Stockpile - Transition Zone 1 Material                         | m³                    | 6,400    |
| Excavate and Stockpile - Liner Bedding Material                             | <i>m</i> <sup>3</sup> | 8,100    |
| Haul (away from km 105 Pond Area)   | <i>m</i> <sup>3</sup> | 53,000   |
| Construction  |                       |          |
| Place (Previously Stockpiled) - Rockfill Material for Erosion<br>Protection | m³                    | 5,200    |
| Excavate/Drill and Blast - Diversion Berm and Ditch                         | m <sup>2</sup>        | 60       |
| Load, Haul and Place - Diversion Berm and Ditch Transition Zone 2           | m³                    | 300      |

This marginal increase is based on breaching the northwest embankment by removing the material, stockpiling it on a nearby laydown area and then placing the material for erosion protection, as well as creating a diversion berm at the upper Mine Haul Road. The unit rate accounts for costs to Drill & Blast, Excavate, Load and Haul 1km. All quantities associated with Excavate, Stockpile, Load, Haul and Place (i.e., 58,500 m3) were grouped into one-line item in the EBS using a unit rate of Excavate, Load & Haul, assuming a 1 km hauling distance (i.e., \$4.32/m3). The material quantity associated with the Diversion Berm and Ditch is assumed to have a drilling depth of 1 m (i.e., 60m3 of material to be drilled and blasted) and was included in the EBS using a Drilling and Blasting unit rate (i.e., \$13.54/m3)

A summary of the marginal increase to the estimate for the KM 105 Sedimentation Pond is shown in Table 0-2.

Table 0-2: Marginal Increase for KM 105 Sedimentation Pond

| Description                   | Unit Rate<br>(\$/m³) | Quantity<br>(m³) | Cost (\$) |
|-------------------------------|----------------------|------------------|-----------|
| Excavate, Load and Haul (1km) | 4. 32                | 58,800           | 253,751   |
| Km 105 Drainage Channel       | 13.54                | 60               | 812       |
|                               | TOTAL                | 58,860           | 254,564   |

## Additional Reclamation Security Calculated in 2023

Following the submission of the 2023 Work Plan, it was recognized that additional security was required for reclamation of the gabion baskets and liner material that form part of the dam structure, as well as water treatment during the closure phase.

### Gabion Baskets

Gabion baskets were utilized to construct the KM 105 Dam per the following schedule:

Table 1: KM 105 Dam Gabion Basket Schedule

| Dimensions        | Number of Baskets | Volume per Basket (m3) | Total Volume (m3) |
|-------------------|-------------------|------------------------|-------------------|
| 2 m x 1 m x 1 m   | 2                 | 2                      | 4                 |
| 3 m x 1 m x 0.5 m | 804               | 1.5                    | 1206              |
| 4 m x 1 m x 0.5 m | 158               | 2                      | 316               |
| 4 m x 1 m x 1 m   | 6                 | 4                      | 24                |
| TOTAL:            | 970               |                        | 1550              |

To remove the gabion baskets, they must be ripped open using an excavator, rockfill inside the basket removed, and the gabion baskets crushed and disposed of in the on-site landfill at the Mine Site. Some labour would also be required to pick basket wire out of the rockfill.

It has been assumed that given the small volume of each basket, 12 baskets can be removed per hour using an excavator and a labourer. Using the blended labour rate of \$88.14/hr, and blended equipment rate of \$137.87 per hour, this yields a total unit rate of \$226.01/hr, and a removal cost of \$18.83/basket.

As no specific unit rate exists for disposal of gabion baskets in the on-site landfill, the unit rate for liner removal and disposal has been utilized, using the largest side of each basket as the area in m<sup>2</sup>.

The direct costs required for removal of the gabion baskets are shown in Table 2 below:

Table 2: KM 105 Dam Closure Costs - Gabion Baskets

| Description  | Unit Rate<br>(\$/unit) | Quantity             | Cost (\$) |
|--|------------------------|----------------------|-----------|
| Rockfill in Gabion Baskets - Excavate, Load and Haul (1km) | 4.32                   | 1550 m <sup>3</sup>  | 6,696     |
| Removal of Gabion Baskets                                  | 18.83                  | 970                  | 18,269    |
| Disposal of Gabion Baskets in Landfill                     | 3.10                   | 3,072 m <sup>2</sup> | 9,523     |
|  |                        | TOTAL                | 34,488    |

## Liner Removal and Disposal

The KM 105 Dam was constructed using Non-Woven Geotextile and Geomembrane Liners. The direct costs required for liner removal are shown in Table 3 below:

Table 3: KM 105 Dam Closure Costs - Liner Removal

| Description   | Unit Rate<br>(\$/m²) | Quantity<br>(m <sup>2</sup> ) | Cost (\$) |
|---|----------------------|-------------------------------|-----------|
| 60 mil Enviroliner Linear Low Density<br>Geomembrane (Embankment and Abutments) | 3.10                 | 7,000                         | 21,700    |
| LP7 Non-Woven Geotextile (Embankment and Abutments)                             | 3.10                 | 14,000                        | 43,400    |
| LP16 Non-Woven Geotextile (Riprap and Gabion Basket Areas)                      | 3.10                 | 2,200                         | 6,820     |
|   |                      | TOTAL                         | 71,920    |

## Water Treatment

Active treatment of water for total suspended solids (TSS) in the KM 105 Sedimentation Pond will be required for two years after operations cease. As operations on the Mine Haul Road will no longer be taking place, it is expected that sediment quantities entering the KM 105 pond will decrease and no longer require treatment after two years. Treatment will only be required during freshet (i.e. June and the first half of July), as the small inflow volumes from August to October will allow natural settlement to occur.

Discharge volumes from the KM 105 Sedimentation Pond are shown in Table 4 below:

Table 4: KM 105 Pond 2022 Discharge Volumes

| Month          | Volume<br>(m³) |
|----------------|----------------|
| June 2022      | 339,138        |
| July 2022      | 137,234        |
| August 2022    | 50,725         |
| September 2022 | 33,203         |
| October 2022   | 838            |

The total discharge for June and the first half of July requiring treatment is 407,755 m<sup>3</sup>. Utilizing the unit rate for water treatment of \$1/m3, the direct costs for water treatment are shown in Table 5 below:

Table 5: KM 105 Pond Closure Costs – Water Treatment

| Description                      | Unit Rate<br>(\$/m²) | Quantity<br>(m²) | Cost (\$) |
|----------------------------------|----------------------|------------------|-----------|
| Water Treatment for TSS (Year 1) | 1                    | 407,755          | 407,755   |
| Water Treatment for TSS (Year 2) | 1                    | 407,755          | 407,755   |
|                                  |                      | TOTAL            | 815,510   |

It is also noted that a water treatment system was installed at the KM 105 Sedimentation Pond in 2023. The reclamation security required for this system is \$69,950.

### Conclusion

The total direct costs for reclamation of the KM 105 dam and sedimentation pond that have been included in the 2023 Reconciliation are shown in Table 6 below:

Table 6: KM 105 Dam and Sedimentation Pond – Reclamation Direct Costs

| Item  | Cost (\$) |
|---|-----------|
| 2023 Work Plan Security (Bulk Rockfill Excavation, Stockpile and Placement, and Diversion Berm/Ditch) | 254,564   |
| KM 105 Dam - Gabion Basket Removal  | 34,488    |
| KM 105 Dam – Liner Removal  | 71,920    |
| KM 105 Sedimentation Pond – Water<br>Treatment for 2 Years  | 815,510   |
| KM 105 Sedimentation Pond – Water<br>Treatment Plant Installed in 2023                                | 69,950    |
| TOTAL   | 1,246,433 |

Attachment 1: KM105 Sedimentation Pond Closure Concept Memorandum (Knight Piésold, 2022)



# **ATTACHMENT 1**

KM105 Sedimentation Pond Closure Concept Memorandum (Knight Piésold, 2022)





## **MEMORANDUM**

**Date:** December 14, 2022 **File No.:** NB102-00181/76-A.01

Cont. No.: NB22-01250

To: Mr. Steve Borcsok
Copy To: Connor Devereaux
From: Greg Johnstone

Re: KM105 Sedimentation Pond Closure Concept, Mary River Project

## 1.0 INTRODUCTION

Knight Piésold Ltd. (KP) was retained by Baffinland Iron Mines Corporation (Baffinland) to develop the closure concept and provide the estimated materials and quantities that would be involved in closure of the KM105 Pond at its Mary River Project (the Project), in support of its Annual Security Review (ASR) process.

Closure of the KM105 Pond will be completed consistent with the closure principles described in the *Interim Closure and Reclamation Plan (ICRP)* for the Project (Baffinland, 2018), as follows:

- Ensure the safety of the abandoned sites for wildlife and human users.
- Ensure physical stability of abandoned Project sites and remaining physical features (open pit, waste rock stockpile, quarries, road and railway embankments, stream crossings).
- Ensure chemical stability of the mine open pit, waste rock stockpile, quarries and other Project disturbed areas.
- Incorporate considerations for future land use of Project sites in final closure planning (to be informed over time by the Mine Closure Working Group).
- Achieve the "Recognized Closed Mine" status in as minimal duration as reasonably practical, as defined by Part (4) of the Metal and Diamond Mining Effluent Regulations (MDMER, formerly the Metal Mining Effluent Regulations) SOR/2002-222 dated 1 June 2018 and ensure no requirements for long-term active care.
- Implementation reclamation in a progressive, ongoing manner during the life of the Project and restore sites as soon as an area is no longer required for operations to limit the need for long term maintenance and monitoring.
- Reclaim disturbed Project areas such that no long-term active care is required.

The objectives and criteria proposed for the implementing Final Closure and achieving the stated goal and principles are discussed in the ICRP.

## 2.0 KM105 SEDIMENTATION POND OVERVIEW

The KM105 Pond is designed to provide temporary containment for runoff reporting from catchment areas upstream of the Mine Haul Road (MHR) and KM105 Pond, as well as from the MHR itself, to settle out Total Suspended Solids (TSS) (Figure 1). Once the pond water quality is acceptable for discharge, effluent from the pond is discharged (pumped) to the drainage course directly downstream of the KM105 Pond Northwest Embankment, which drains to Sheardown Lake Tributary 1 (SDLT-1). The KM105 Pond will function



through the operation phase of the Project and for several years into active closure, until acceptable water quality is observed.

KP produced Issued for Construction (IFC) drawings of the KM105 Pond in 2021 (KP, 2021). The design of the KM105 Pond (Figure 2) consists of two embankments constructed along the south and northwest extents of the pond. The embankments were designed to be constructed using compacted 500 mm minus Rockfill with layers of compacted Transition Zones 2 (6 inch minus material) and Transition Zone 1 (32 mm minus material), and compacted liner bedding placed towards the upstream slope of the embankment. The geometry of the embankments and specifications of the KM105 Pond are summarized in Table 1.

| Table 1 KM105 Pond Specification |
|----------------------------------|
|----------------------------------|

| Parameter                              | Value  |
|--|--|
| Embankment Upstream Slopes             | 3H:1V (Rockfill), 2.5H:1V (Other Materials)            |
| Embankment Downstream<br>Slopes        | 2H:1V (South Embankment), 3H:1V (Northwest Embankment) |
| Embankment Crest Width (m)             | 12   |
| Embankment Crest Elevation (masl) (1)  | 222  |
| Pond Base Elevation (masl)             | 209  |
| Sediment Storage (Dead<br>Storage) (m) | 0.5 - 1.0  |
| Volume (m <sup>3</sup> ) (2)           | 160,457  |
| Dry Freeboard (m)                      | 0.5  |
| Spillway Inlet Elevation (masl)        | 220.5  |

### Note(s):

- 1. masl metres above sea level.
- 2. Pond volume is based on a 2022 survey provided by Baffinland.

Baffinland constructed the KM105 Pond embankments in late 2021 through early 2022. The 2022 open water season was its first year of operation.

### 3.0 KM105 SEDIMENTATION POND CLOSURE CONCEPT

The overall closure objectives for the KM105 Sedimentation Pond are to re-establish the natural drainage of the KM105 Pond area, and to ensure long-term physical stability by limiting future erosion within the drainage path.

Closure of the KM105 Sedimentation Pond will occur as part of mine closure, and once runoff from the catchment area consistently meets applicable discharge limits (Water Licence (NWB, 2015) and Schedule 4 of the Metal and Diamond Mines Effluent Regulations (MDMER, 2018)). The determination of "consistently meets" is recommended to be 4 weekly sampling events occurring during the month of July or August when runoff is representing worst case water quality conditions.

Runoff from the MHR that reports to KM105 Pond is highly turbid due to the fine-grained ore dust that covers the road surface. Water treatment is currently required before pond effluent can be discharged to the downstream drainage. Ore dust will no longer be generated upon the cessation of mining, and thus the

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quality of the runoff reporting to the KM105 Pond should improve with time. A minimum of two years of water treatment should be assumed

The closure measures for the KM105 Pond are shown on Figure 2, and includes the following closure works (in chorological order):

- Divert the Upper MHR Ditch into the Open Pit To reduce the amount of water reporting to the KM105 Pond basin and ultimately to SDLT-1 at closure, the upper portion of the MHR ditch will be diverted into the open pit where the edge of the pit approaches the MHR. The advantages of this action include both a faster pit flooding rate, and a reduction to the amount of runoff and sedimentation loadings to the KM105 Sedimentation Pond. Water quality is also likely to be improved, as the diverted catchment area represents an area, close to the mining activity (MHR and open pit), where fugitive dust has been the greatest. This measure may be implemented immediately upon mine closure.
- Pond Operation Including Water Treatment for Two Years As noted above, water treatment will
  continue until effluent in the pond is suitable for discharge without treatment. We recommend planning
  for a minimum of two years of pond operation before further pond closure measures can be undertaken.
- Drawdown the KM105 Pond Once water quality meets discharge criteria, the water level within the Pond will be drawn down to the greatest extent possible to allow for subsequent work to be completed in a dry environment.
- Breach the Northwest Embankment Once the working conditions are dry, the Northwest Embankment will be breached, through excavation to an elevation of approximately 208 masl. The breach will involve the excavation of the embankment Rockfill, liner bedding, non-woven geotextile and geomembrane that were previously installed within the embankment. The excavated geosynthetics are to be disposed of at the Mine Site Landfill Facility and the remaining materials will be disposed of as per the ICRP (Baffinland, 2018). The excavation will maintain the existing slopes, stop at the Transition Zone 1 material (32 mm minus), and allow drainage towards the natural stream channel. A detail of the excavation limits is presented on Figure 2.
- Install an Erosion Protection Liner Following excavation of the Northwest Embankment, the previously excavated rockfill, consisting of 500 mm minus material, will be placed in an approximate 1.2 m thick layer to use the entire volume of excavated rockfill from the Northwest Embankment and compacted over disturbed areas on the Transition Zone 1 material and native soils across the entire KM105 pond to provide erosion protection and cover the sediments. The rockfill will need to be place so that positive drainage is directed towards SDLT-1.

The final closure measures (pond drawdown, breaching of the Northwest Embankment, and installation of the erosion protection liner) should be completed in the fall, when runoff is minimal, and the ground has not yet frozen.

The South Embankment will not retain water once the NW Embankment has been breached, and thus it can remain in-place.

The excavation cut and fill volumes for the closure works are provided in Table 2.



## 4.0 CLOSING

We trust this meets Baffinland's current requirements. Please contact the undersigned with any questions.

### Attachments:

Table 2 Rev 0 Estimated Materials and Quantities

Figure 1 Rev 0 KM105 Sedimentation Pond - Closure Overview Figure 2 Rev 0 KM105 Sedimentation Pond - Closure Plan

## References:

Baffinland Iron Mines Corporation (Baffinland), 2018. *Interim Closure and Reclamation Plan.* October 30. Ref. No. BAF-PH1-830-P16-0012. Revised Draft, Rev 5.

Approval that this document adheres to the Knight Piésold Quality System:

Knight Piésold Ltd. (KP), 2021. Letter to: Allan Knowlton, Baffinland Iron Mines Corporation. Re: *KM105 Sedimentation Pond Design Brief and Issued for Construction Drawings*. June 28. North Bay, Ontario. Ref. No. NB21-00655 (NB102-181/71).

Metal and Diamond Mining Effluent Regulations (MDMER), 2018. SOR/2002-22.

Nunavut Water Board (NWB), 2015. Type A Water Licence 2AM-MRY1325 - Amendment 1. July 30.

/gj



#### TABLE 2

### **BAFFINLAND IRON MINES CORPORATION** MARY RIVER PROJECT

#### KM105 SEDIMENTATION POND CLOSURE CONCEPT **ESTIMATED MATERIALS AND QUANTITIES**

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| Item No. |     | ).    | Description   |                | Estimated<br>Quantity |
|----------|-----|-------|---|----------------|-----------------------|
| 1        |     |       | Mobilization and Demobilization   |                |                       |
|          | 1.1 |       | General   |                |                       |
|          |     | 1.1.1 | Supply, Install, Maintain and Remove - Sediment Control - Best Management Practices (BMPs)  | L.S            | 1                     |
| 2        |     |       | Mine Haul Road (MHR) Work   |                |                       |
|          | 2.1 |       | Construct Diversion Berm and Ditch  |                |                       |
|          |     | 2.1.1 | Excavate/Drill and Blast - MHR Diversion Berm and Ditch   | m <sup>2</sup> | 60                    |
|          |     | 2.1.2 | Load, Haul and Place - MHR Diversion Berm and Ditch Transition Zone 2   | m <sup>3</sup> | 300                   |
| 3        |     |       | KM105 Sedimentation Pond Work   |                |                       |
|          | 3.1 |       | Water Quality Testing   |                |                       |
|          |     | 3.1.1 | KM105 Pond Water Quality Testing - Annually   | L.S            | 2                     |
|          | 3.2 |       | Water Removal   |                |                       |
|          |     | 3.2.1 | Dewater KM105 Pond (Assume Pond is at the Maximum Water Elevation of 220.5 masl)  | m <sup>3</sup> | 160,500               |
|          | 3.3 |       | Excavate, Haul and Place Granular Material  |                |                       |
|          |     | 3.3.1 | Excavate, Haul, Place and Compact - Rockfill Material from Northwest Embankment Across Bottom of Pond Surface (approximately 1.2 m depth) | m <sup>3</sup> | 44,000                |
|          |     | 3.3.2 | Excavate, Haul and Place - Transition Zone 1 Material   | m <sup>3</sup> | 6,400                 |
|          |     | 3.3.3 | Excavate, Haul and Place - Liner Bedding Material   | m <sup>3</sup> | 8,100                 |
|          |     | 3.3.4 | Remove, Haul and Place - Gabion Basket Material including Baskets   | ea.            | 970                   |

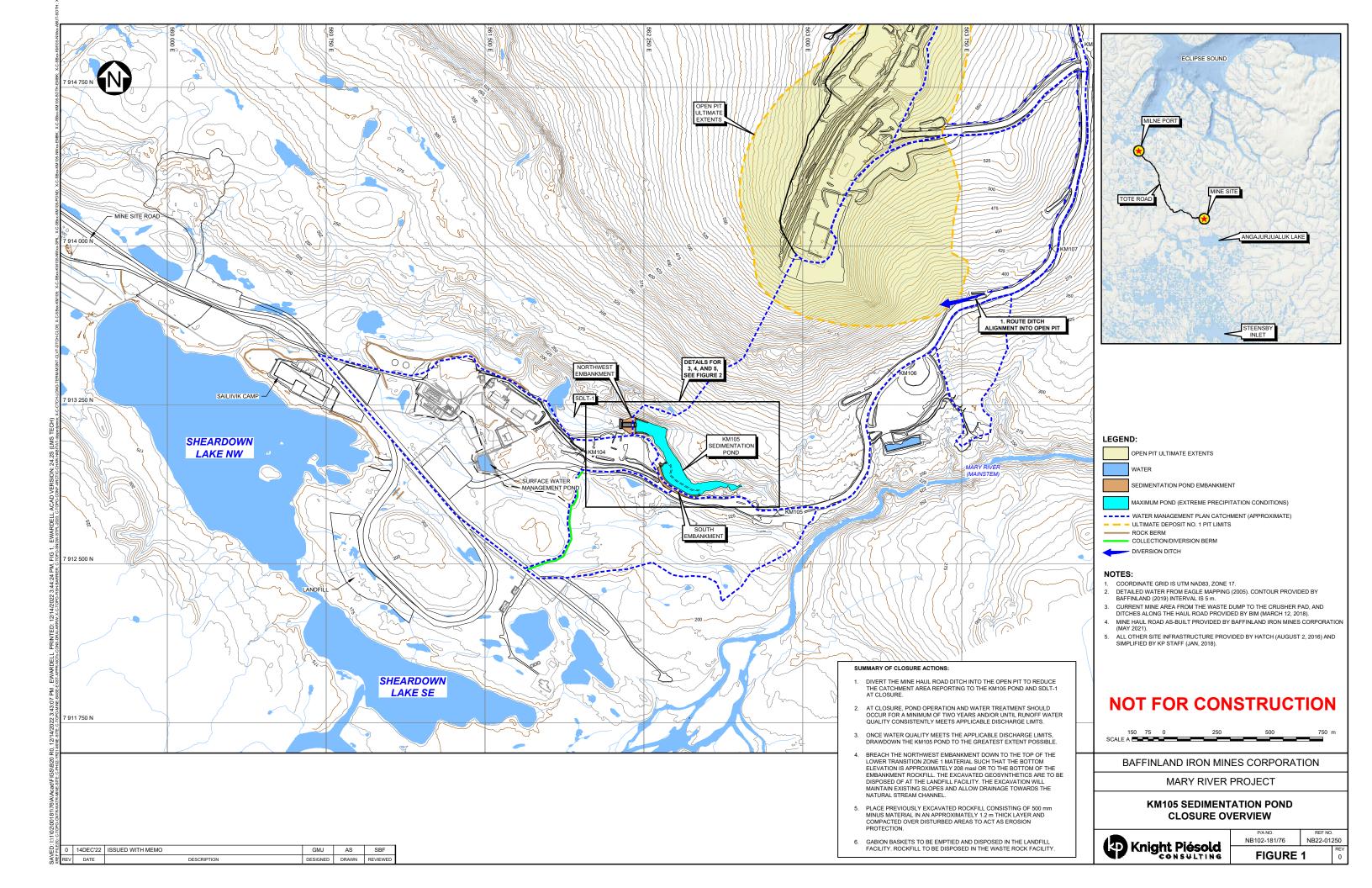
I:\1\02\00181\76\A\Correspondence\NB22-01250 - Memo - KM105 Closure Plan \[KM105 Closure Plan M+Q.2022-12-14.xlsm]KM105 Closure

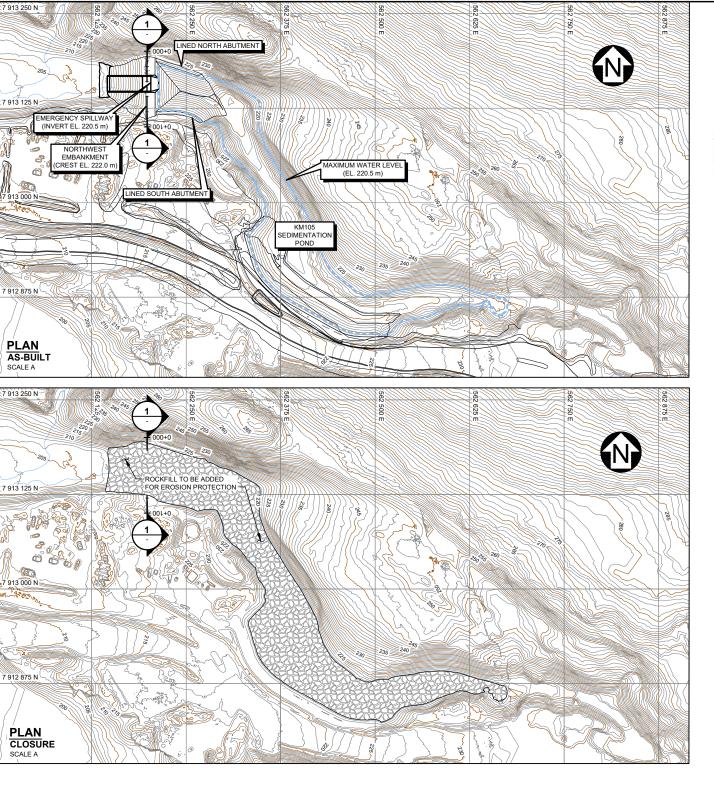
### NOTES:

| 0   | 14DEC'22 | ISSUED WITH MEMO NB22-01250 | GMJ    | SBF   |
|-----|----------|-----------------------------|--------|-------|
| REV | DATE     | DESCRIPTION                 | PREP'D | RVW'D |

MATERIALS AND QUANTITIES ARE BASED ON NEAT LINE ESTIMATES, AS WELL AS THE TYPICAL SECTIONS AND DETAILS DEVELOPED FOR THE DESIGN. A 15% CONTINGENCY WAS APPLIED TO THE ROCKFILL VOLUME. NO OTHER CONTINGENCIES OR BULKING/COMPACTION FACTORS HAVE BEEN APPLIED.

THE ROCKFILL VOLUME WAS CALCULATED ASSUMING THE DAM WAS CONSTRUCTED ACCORDING TO THE DESIGN PROVIDED BY KP (KP, 2021)



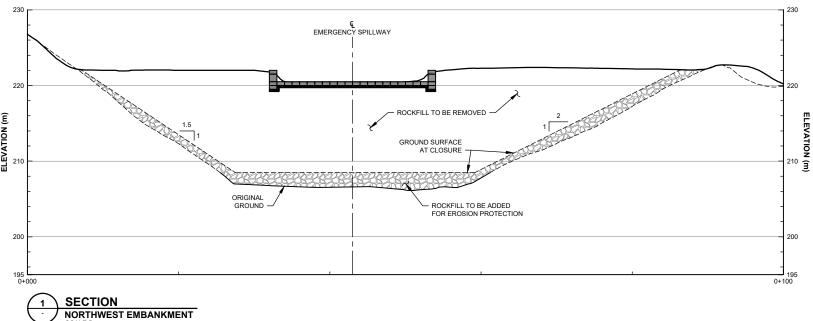


GMJ AS SBF

0 14DEC'22 ISSUED WITH MEMO

DESCRIPTION

REV DATE



#### SUMMARY OF CLOSURE ACTIONS:

- 1. DIVERT THE MINE HAUL ROAD DITCH INTO THE OPEN PIT TO REDUCE THE CATCHMENT AREA REPORTING TO THE KM105 POND AND SDLT-1 AT CLOSURE.
- 2. AT CLOSURE, POND OPERATION AND WATER TREATMENT SHOULD OCCUR FOR A MINIMUM OF TWO YEARS AND/OR UNTIL RUNOFF WATER QUALITY CONSISTENTLY MEETS APPLICABLE DISCHARGE LIMTS.
- 3. ONCE WATER QUALITY MEETS THE APPLICABLE DISCHARGE LIMITS, DRAWDOWN THE KM105 POND TO THE GREATEST EXTENT POSSIBLE
- 4. BREACH THE NORTHWEST EMBANKMENT DOWN TO THE TOP OF THE LOWER TRANSITION ZONE 1 MATERIAL SUCH THAT THE BOTTOM ELEVATION IS APPROXIMATELY 208 masl OR TO THE BOTTOM OF THE EMBANKMENT ROCKFILL. THE EXCAVATED GEOSYNTHETICS ARE TO BE DISPOSED OF AT THE LANDFILL FACILITY. THE EXCAVATION WILL MAINTAIN EXISTING SLOPES AND ALLOW DRAINAGE TOWARDS THE
- PLACE PREVIOUSLY EXCAVATED ROCKFILL CONSISTING OF 500 mm MINUS MATERIAL IN AN APPROXIMATE 1.2 m THICK LAYER AND COMPACTED OVER DISTURBED AREAS TO ACT AS EROSION PROTECTION.
- 6. GABION BASKETS TO BE EMPTIED AND DISPOSED IN THE LANDFILL FACILITY. ROCKFILL TO BE DISPOSED IN THE WASTE ROCK FACILITY.

## LEGEND:

ROCKFILL

MATERIALS TO BE REMOVED

ROCKFILLED GABION BASKET - ESTIMATED POND EXTENTS

 MAJOR CONTOUR LINE (5 m INTERVAL)
 MINOR CONTOUR LINE (1 m INTERVAL) ---- PREPARED SURFACE

---- EXISTING GROUND SURFACE

## NOTES:

- 1. COORDINATE GRID IS UTM NAD83, ZONE 17.
- 2. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 1 m.
- 3. DETAILED WATER FROM EAGLE MAPPING (2005). CONTOURS PROVIDED BY BAFFINLAND (2019-2022).
- 4. KM105 POND EMBANKMENT OUTLINES SHOWN REPRESENT THE DESIGN. CONTOURS ARE AS-BUILT SURVEY, PROVIDED BY BAFFINLAND IRON MINES CORPORATION (JUNE 2022).
- 5. DIMENSIONS AND ELEVATIONS ARE IN METRES, UNLESS OTHERWISE NOTED.

# **NOT FOR CONSTRUCTION**



BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

KM105 SED CLO



| IMENTATION POND<br>SURE PLAN |              |            |     |  |  |  |
|------------------------------|--------------|------------|-----|--|--|--|
|                              | P/A NO.      | REF NO.    |     |  |  |  |
| المالم                       | NB102-181/76 | NB22-01250 |     |  |  |  |
| old                          |              |            | REV |  |  |  |
| TINE                         | FIGURE 2     |            | Λ   |  |  |  |



## **APPENDIX B**

2024 WORK PLAN SITE LAYOUTS

2024 Work Plan – Milne Port Site Layout
2024 Work Plan – Mine Site Layout
2024 Work Plan – Tote Road



## **APPENDIX C**

BASIS OF ESTIMATE – BAFFINLAND IRON MINES MARY RIVER PROJECT 2023 AND 2024 SECURITY UPDATE









## **APPENDIX D**

INTERIM CLOSURE AND RECLAMATION PLAN (BAF-PH1-830-P16-0012)









## **APPENDIX E**

EMERGENCY RESPONSE PLAN (BAF-PH1-840-P16-0002)





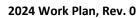




## **APPENDIX F**

SPILL CONTINGENCY PLAN (BAF-PH1-830-P16-0036)









## **APPENDIX G**

OPTION EXERCISE NOTICE FOR STEENSBY RAILWAY REALIGNMENT





