
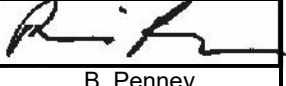




## 2018 WORK PLAN

10 January 2018

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## SECTION 1.0 - INTRODUCTION

The following document presents Revision 1 of the 2018 Work Plan 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 the Amendment No. 1 of Type 'A' Water Licence 2AM-MRY1325 for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. In the event the Project does not advance, the work items as described and constructed in the 2018 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 C) and relevant regulatory and permit obligations.

The 2018 Work Plan has been prepared in accordance with the Draft Commercial Lease Operations Guide developed during 2015. The draft Operations Guide is a set of procedures developed jointly by QIA and Baffinland to guide the on-going administration of the Lease. This document was developed using the draft Commercial Lease Operations Guide procedure entitled "Annual Work Plan Submission".

This document represents Revision 1 of the 2018 Work Plan, and was prepared based on requests for clarification generated during the Annual Security Review (ASR) process initiated in November 2017. Based on the uncertainty related to approvals of some work items in the 2018 Work Plan, the scope of work for 2018 has been divided into works that are currently understood to be approved under the existing Type 'A' Water Licence (2AM-MRY1325, Amendment No. 1) and the Project Certificate (No. 5, Amendment No. 1), and those that require further approvals. Details on the breakdown of the scope of work are provided in Section 3.0 of this Work Plan.

An overview of the ongoing mining operations is provided below; further details are presented in subsequent sections of the document. The ongoing operations for 2018 are as follows:

1. Development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore;
2. The 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. On-going operation of permitted quarry and borrow sources; additionally there is one (1) quarry (Q5) identified for development in 2018;
5. At Milne Port, vessels carrying fuel, equipment and supplies for use at the Mine Site and Milne Port will arrive during open water (approximately between mid-July and mid-October 2018). 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 the construction and operation of the Project 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. On-going exploration activities including drilling, mapping, prospecting, sampling, and geophysics. Planning of the details of the summer drilling and/or trenching program is not yet finalized;
9. Tote Road improvements to address freshet runoff issues and poor road conditions during the spring and summer periods;
10. Continued construction of additional fuel storage at the port site;
11. Continued construction of the 800-person hardwall camp at the Mine site to address retention issues and safety concerns with continued long-term use of the tent camp at the Mine;
12. Site grading and laydown construction for supplies and equipment to support future construction activities and remove ponding and permafrost degradation issues around current infrastructure.
13. Installation of a floating freight dock to improve efficiencies on offloading of sealift as well as provide an opportunity for shore based connection for fuel ships to potentially avoid future use of floating hose for fuel receipt.
14. Erection of additional maintenance facilities to safely service equipment.

## SECTION 2.0 - 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 2018 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 and Amended Project Certificate	005	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
Amendment No.1 Type A Water Licence <sup>1</sup>	2AM-MRY1325	Nunavut Water Board	10-Jun-25
Type B Water License – Exploration	2BE-MRY1421	Nunavut Water Board	16-Apr-21
Land Use Permit - Steensby and Milne	N2014C0013	Indigenous an Northern Affairs Canada	30-Jun-19
Land Use Permit - Milne Foreshore	N2014X0012	Indigenous an Northern Affairs Canada	30-Jun-19
Land Use and Quarrying Permit - Tote Road (Borrow P1 at Km 63)	N2014Q0016	Indigenous an Northern Affairs Canada	30-Jun-19
Land Use Permit - Bruce Head	N2014J0011	Indigenous an Northern Affairs Canada	30-Jun-19
Land Lease - Milne Foreshore	47H/16-1-2	Indigenous an Northern Affairs Canada	30-Jun-35
Permitted Quarries and Borrows on Inuit Owned Land: Quarries Q1, QMR2, Q7, Q11, Q19, Borrows KM104, Km 2, and Km 97	N/A	Qikiqtani Inuit Association	N/A
Fisheries Authorization - Ore Dock	14-HCAA-00525	Department of Fisheries and Oceans	31-Dec-20

Permit Name	Permit Number	Regulatory Agency	Expiry
Fisheries Authorization - Tote Road	NU-06-0084	Department of Fisheries and Oceans	No Expiry
Fisheries Authorization – Crossings	06-HCAA-CA7-00084	Department of Fisheries and Oceans	31-Dec-17
Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements	Various Letters of Advice	Department of Fisheries and Oceans	No Expiry
Licence to Fish for Scientific Purposes and Animal Use Protocol <sup>2</sup>	S-16/17-1016-NU, S-16/17-1019-NU, AUP 2016-027 FWI-ACC-2016-017	Department of Fisheries and Oceans	-
Navigable Waters - Crossings	8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271	Transport Canada	Until work completed
Marine Facility	4306-2-6- P/B	Transport Canada	24-June-20
Scientific Permit <sup>3</sup>	02 008 15R-M	Government of Nunavut	-
Archaeology Permit <sup>4</sup>	2016-29A	Government of Nunavut	-
Factory Licence <sup>4</sup>	F76068	National Resources Canada	-

**NOTE:**

<sup>1</sup> Previously held Type 'B' Water Licence 8BC-MRY1416 was cancelled in February 2016 as all activities therein are now covered by the amended Type 'A' Water Licence.

<sup>2</sup> Held by Minnow Environmental Inc. and North/South Consulting for Licence to Fish for Scientific Purposes associated with the Project

<sup>3</sup> Held by Knight Piésold for performance of IQ and Traditional Harvest Studies associated with the Project

<sup>4</sup> Held by Claude Pinard for performance of archeology work associated with the Project

<sup>5</sup> Held by Dyno Nobel, the explosives contractor on behalf of the Project

As part of the 2018 Work Plan submission, Baffinland has identified quarry Q5 which may be required to be developed to complete the work scope during 2018. A Quarry Management Plan will be developed for review and approval prior to initiation of any works at this location.

## SECTION 3.0 - ANNUAL SCOPE OF OPERATIONS AND WORK

Table 3-1 below provides a description of Baffinland's proposed operation and work for 2018, 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.

Based on discussions with the Nunavut Water Board (NWB), Indigenous and Northern Affairs Canada (INAC) and the QIA regarding the Annual Securities Review (ASR) process, concerns were identified regarding the uncertainty of the activities originally proposed in the 2018 Work Plan (Rev. 0). As a result, the NWB concluded<sup>1</sup> that "the scope of the 2017-2018 ASR will be limited to those works/activities in the 2018 Work Plan that have already been approved under Water Licence No. 2AM-MRY1325 (including as amended under Amendment No. 1), and the NIRB Project Certificate No. 005 (including as amended for the Early Revenue Phase)", as well as activities already proposed in the 2017 Work Plan and 2017 Work Plan Addendum but not yet completed.

In an effort to clarify the ASR process, the scope of work for 2018 has been divided into three (3) categories:

- **Category 1** – Scope of Work Items that are considered approved under the Type A Water Licence and Project Certificate. (Table 3-1)
- **Category 2** – Scope of Work Items that are considered approved under the Project Certificate, but require a Type 'A' Water Licence modification. (Table 3-2)
- **Category 3** – Scope of Work Items for which approval has not been fully assessed, and deferred for future consideration. (Table 3-3)

All of these works are planned for implementation in 2018, but will only proceed following the applicable regulatory approvals, and approval from QIA including the posting of any relevant marginal security adjustments.

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<sup>1</sup> Nunavut Water Board (NWB), 2017. RE: Type 'A' Water Licence 2AM-MRY1325 – Amendment No. 1, Mary River Project; 2018 Annual Security Review Process – General Correspondence Follow-Up. Letter issued 5 December 2017

**Table 3-1: Scope of Work for 2018 – Category 1 Activities**

Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known) Zone 17W</i>	<i>Provide a detailed description of the activity.</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
<b>Scope of Work for 2018</b>								
1	Milne Port	Impact Area	LP1 N7976200 E504100 (13,000 m <sup>2</sup> ) LP2 N7975900 E503775 (32,000 m <sup>2</sup> ) LP3 N7975200 E503200 (131,000 m <sup>2</sup> ) LP4 N7975175 E503500 (13,000 m <sup>2</sup> ) LP5 N7974900 E503400 (65,000 m <sup>2</sup> ) LP6 N7974700 E503500 (7,000 m <sup>2</sup> ) LP7 N7974600 E503700 (21,000 m <sup>2</sup> )	Development of seven (7) laydowns in the Port area totaling 282,000 m <sup>2</sup> to improve the efficiency of material storage and management. The laydowns will be constructed by filling directly over undisturbed ground including filling in low lying areas that collect water. The lay down will be constructed utilizing blasted rock with granular topping to a total minimum thickness of 1 m, free draining to appropriate ditches and water courses.	Minor leveling and grading within Potential Development Area	2018	Security Water License Modification <sup>1</sup>	Layout drawing(s)
2	Milne Port	Impact Area	N976800 E504110	Upgrade existing barge offload area to improve safety and operational efficiencies by installing a floating freight dock, improving vessel turnaround time.	Spudding of barge in marine foreshore	2018	DFO Authorization	IFCs
3	Milne Port	Impact Area	N7976100 E503500	Relocate existing facilities located in the general area of the fuel tank farm to improve the traffic management of the overall port area.	No effect, will be placed on developed laydown within Potential Development Area	2018	Security Only	Layout drawing(s)
4	Milne Port	Impact Area	N7975800 E503200	Realignment of existing shipload conveyor to improve stockpile laydown area management, including realignment of the stockpile laydown area resulting in additional 26,000 m <sup>2</sup> disturbed land.	Minor leveling and grading within Potential Development Area.	2018	Security Only	Layout drawing(s)
5	Mine Site	Impact Area	N917115 E562565	Waste Rock Sedimentation Pond improvements	Work to address concerns of regulators on dealing with adverse pH conditions	2018	Water License Modification <sup>2</sup>	IFCs
6	Milne Port	Impact Area	N7972669 E504899	Installation of garages, site offices and equipment storage containers on laydown R3 (laydown identified in 2017 work plan).	No effect, will be placed on developed laydown within Potential Development Area	2018	Security Only	Layout drawing(s)
7	Mine Site	Impact Area	N7914181 E560035	Development of an 11,400 m <sup>2</sup> laydown area adjacent to the 800-person camp. The laydown will be constructed utilizing blasted rock with granular topping to a total minimum thickness of 1 m, free draining to appropriate ditches and water courses.	Minor leveling and grading within Potential Development Area	2018	Security Only	Layout drawing(s)
8	Mine Site	Impact Area	N7913123 E561625	Construction of mine truckshop including two truck bays: a dual purpose wash and lube bay, and a general repair and maintenance bay. Includes concrete floor, overhead crane, and external tool crib, parts storage and HVAC modules. Reinforced concrete building foundation, floor slab and sump(s).	Minor leveling and grading within Potential Development Area	2018	Security Only	Layout drawing(s)
9	Mine Site	Impact Area	N7913733 E560057	Contractor office, garage and workshop installation on existing laydown pad.	No effect, will be placed on developed laydown within Potential Development Area	2018	Security Only	Layout drawing(s)
10	Mine Site	Impact Area	N7911960 E561780	Additional garage at explosives plant facility	No effect, will be placed on developed laydown within Potential Development Area	2018	Security Only	Layout drawing(s)
<b>Work Carried over from 2017</b>								
11	Mine Site	Impact Area	N7914181 E560035	Continued installation of 800-person permanent camp inclusive of: potable water treatment, sewage treatment, incinerator, kitchen, dining, locker, recreational and washroom facilities.	No effect, will be placed on developed laydown within Potential Development Area	2018	Security Posted in August 2017 Approved Water License Modification No. 4 (20 Sept 2017)	IFCs



Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known) Zone 17W</i>	<i>Provide a detailed description of the activity.</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
12	Mine Site	Impact Area	N7912921 E561303	Expansion of Crusher Pad Storage Area to provide increased area for ore, equipment mobility, and extra room for snow storage. Ditch and settling pond to be modified as warranted to address any drainage concerns	Extension of crusher pad and drainage infrastructure within Potential Development Area	2018	Security Posted in August 2017 Water License Modification No. 1 (26 May 2017)	Layout drawing(s)
13	Milne Port	Impact Area	N7976199 E503620	Install 3 ML arctic diesel fuel tank to same design criteria as existing tanks, in existing containment and interconnecting pipelines to existing filling and distribution system.	Minor leveling and grading within Potential Development Area	2018	Security Posted in August 2017 Approved Water License Modification No. 2 (14 Sept 2017)	IFCs
14	Milne Port	Impact Area	N7974015 E504036 N7973631 E504478 N7972669 E504899	Development of three laydown areas (R1, R2 and R3) for construction material laydown, equipment maintenance and welding workshops, site offices and containerized spares. The additional laydown space will optimize storage of materials and supplies and reduce traffic. The laydowns will be constructed by filling directly over undisturbed ground including filling in low lying areas that collect water. The lay down will be constructed utilizing blasted rock with granular topping to a total minimum thickness of 1 m, free draining to appropriate ditches and water courses.	Minor leveling and grading within Potential Development Area.	2018	Security Only	Layout drawing(s)
15	Milne Port, Tote Road, Mine Site	Impact Area/General Area	Various	Replacement and upgrade of IT infrastructure, including communication towers to allow for better IT system performance.	Minor leveling and grading within Potential Development Area.	2018	Options Exercise Notice <sup>3</sup>	Layout drawing(s)
<b>Progressive Reclamation</b>								
16	Milne Port	-	N7975568 E503745	Management of hydrocarbon impacted soils within the existing landfarm facility.	N/A	Ongoing	N/A	N/A
17	Milne 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	2018	N/A	N/A
18	Milne Port and Mine 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
19	Tote 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 Km97	N/A	Ongoing	N/A	N/A
20	Tote 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
21	Mine 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
22	Site 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

Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known) Zone 17W</i>	<i>Provide a detailed description of the activity.</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
23	Site 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
24	Site 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

NOTES:

- 1. Two (2) of the seven (7) laydowns for the Milne Port area will require a Water Licence Modification. Based on direction from NWB, these have been included as Category 1 activities such that securities can be assessed. Work on these two (2) laydowns will not commence until the applicable regulatory approval is granted.
- 2. Modification of the Waste Rock Sedimentation Pond (MS-08) is required to address uncontrolled discharge of non-compliant water. An action plan and revised mitigation design has not been finalized at this time, however this work item has been included such that a security estimate for reclamation can be prepared, and will be revised and reconciled following implementation of any revised structures or mitigation measures.
- 3. An Options Exercise Notice is required to revise the boundaries of the lease area. Work on the select locations requiring an OEN will not commence until approval from QIA is granted.

Table 3-2: Scope of Work for 2018 – Category 2 Activities

Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known)</i>	<i>Provide a detailed description of the activity.*</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected**</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
<b>Scope of Work for 2018</b>								
25	Milne Port	Impact Area	Various locations	Construction of up to 3 km of Port site access roads to improve port traffic management. Locations to be determined.	Leveling and grading within Potential Development Area	2018	Water License Modification	N/A
26	Milne Port	Impact Area	Various	Port Site Water Management	Focus on improving water management by keeping water away from coming in contact with the port area. This may include berms, ditches, culverts and ponds to divert water into existing drainages before the camp area.	2018	Water License Modification	IFCs
27	Milne Port	Impact Area	N7976518 E504044	Relocation of effluent discharge point to barge offload area	Positive effect. Reduced environmental spill risk.	2018	Water License Modification	IFCs
28	Mine Site	Impact Area	Various	Mine Site Water Management	Focus on improving water management by keeping water away from coming in contact with the mine site area. This may include berms, ditches, culverts and ponds to divert water into existing drainages before the camp area.	2018	Water License Modification	IFCs
29	Milne Port	Impact Area	N7976800 E504110	Marine manifold building relocation - moving from current location north of fuel tank farm to upgraded freight dock location	Minor leveling and grading within Potential Development Area	2018	Water License Modification	Layout drawing(s)
30	Mine Site	Impact Area	N7914125 E561550	Realignment of the effluent discharge line to accommodate construction of the crusher pad expansion.	Minor leveling and grading within Potential Development Area	2018	Water License Modification	IFCs
31	Mine Site	Impact Area	Various	Realignment and upgrades to the Service Road to facilitate effluent discharge realignment and allow for ongoing inspection and monitoring	Minor leveling and grading within Potential Development Area	2018	Water License Modification	Layout drawing(s)

Table 3-3: Scope of Work for 2018 – Category 3 Activities

Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known)</i>	<i>Provide a detailed description of the activity.*</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected**</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
<b>Scope of Work for 2018</b>								
32	Tote Road	Impact Area	Km 13.9 to 16.8 Km 19.6 to 23.2 Km 25.5 to 27.2 Km 29.9 to 48.9 Km 51.3 to 60.3	Approximately 35 km of tote road improvement upgrades, allowing bi-directional traffic on parallel road alignments, including construction of access.	Quarrying and crushing, load, haul and placement of material. Cut and fill operation within Potential Development Area	TBD	Not Identified	TBD
33	Tote Road	Impact Area	Km 13.9 to 16.8 - (13) Km 19.6 to 23.2 - (9) Km 25.5 to 27.2 - (7) Km 29.9 to 48.9 - (66) Km 51.3 to 60.3 - (28)	Installation of approximately 125 new culverts to support 35 km of tote road improvement upgrades.	Drainage improvements	TBD	Not Identified	TBD
34	Tote Road	Impact Area	#1 N7974483 E503987 (35,000 m <sup>2</sup> ) #2 N7974619 E503923 (20,000 m <sup>2</sup> ) #3 N7967354 E510711 (15,000 m <sup>2</sup> ) #4 N7961784 E517321 (18,000 m <sup>2</sup> ) #5 N7952973 E521689 (10,000 m <sup>2</sup> ) #6 N7945003 E523042 (10,000 m <sup>2</sup> ) #7 N7940440 E524080 (14,000 m <sup>2</sup> ) #8 N7932256 E527347 (14,000 m <sup>2</sup> ) #9 N7928895 E528323 (14,000 m <sup>2</sup> ) #10 N7921442 E540680 (25,000 m <sup>2</sup> ) #11 N7921162 E543614 (15,000 m <sup>2</sup> ) #12 N7919721 E546930 (20,000 m <sup>2</sup> ) #13 N7914909 E558054 (20,000 m <sup>2</sup> ) #14 N7913246 E560943 (20,000 m <sup>2</sup> )	Development of 14 laydown pads (250,000 m <sup>2</sup> ) along the tote road alignment for crushed rock stockpiling and material storage, reducing Tote Road construction traffic. The laydowns will be constructed utilizing blasted rock with granular topping to a total minimum thickness of 1 m, free draining to appropriate ditches and water courses.	Minor leveling and grading within Potential Development Area.	TBD	Not Identified	TBD
35	Tote Road	Impact Area	N7972857 E505416	Development of an 80,000 m <sup>2</sup> laydown area to install a crushing plant and crushed material stockpile. The laydown will be constructed utilizing blasted rock with granular topping to a total minimum thickness of 1 m, free draining to appropriate ditches and water courses.	Minor leveling and grading within Potential Development Area	TBD	Not Identified	TBD
36	Tote Road	Impact Area	Km 18 N7964003 E515552 Km 38 N7945930 E522896 Km 50 N7928253 E528758 Km 80 N7920393 E538932	Installation of 2 x 80 person mobile temporary camps along Tote Road right of way. Camps consist of hardwall kitchen and wash cars and soft wall accommodation units, all constructed on wood block foundations. Camps will be installed on 75mx120m pads, located approximately 500 m from the tote road with 8 m wide access roads. Installation of mobile camps will reduce worker vehicle traffic on Tote road and improve working conditions. No local water or waste treatment infrastructure required.	Leveling and grading within Potential Development Area.	TBD	Not Identified	TBD
37	Tote Road	Impact Area	Various locations	Mobilize 6 x 50,000 L, 2 x 22,500 L and 6 x 10,000 L portable fuel tanks at mine, port and various locations along the tote road to support tote road upgrades and reduce fuel vehicle traffic.	Minor leveling and grading within Potential Development Area.	TBD	Not Identified	TBD
38	Tote Road	Impact Area	Milne Port, Mary River, Km 12.8, 48 and 59	New explosives storage magazines.	Minor leveling and grading within Potential Development Area	TBD	Not Identified	TBD
39	Mine Site	Impact Area	N7912921 E561303	Construction of crusher pad expansion including access road, water management structure	Leveling and grading within Potential Development Area	TBD	Not Identified	TBD

Item No.	Property Section	Land Use Area	Approximate Location	Description	Description of Effect on Feature(s)	Anticipated Completion Year	Required Permit Applications	Other Information
	<i>e.g. Milne Inlet/Tote Road/Mine Site</i>	<i>e.g. Impact Area/Exploration Area</i>	<i>Approximate UTM (if known)</i>	<i>Provide a detailed description of the activity.*</i>	<i>A description of how the feature(s) (topographical and/or manmade) will be affected**</i>	<i>N/A</i>	<i>List any associated permit applications if applicable.</i>	<i>e.g. Issued for construction documentation, OENs.</i>
40	Milne Port	Impact Area	N7975642 E502744	Installation of 380-person temporary camp inclusive of potable water treatment, sewage treatment, incinerator, kitchen, dining, locker, recreational and washroom facilities.	No effect, will be placed on developed laydown outside of Potential Development Area	TBD	Not Identified	TBD
41	Milne Port	Impact Area	N7976199 E503620	Install 15 ML arctic diesel fuel tank to same design criteria as existing tanks, in existing containment and interconnecting pipelines to existing filling and distribution system.	Minor leveling and grading within Potential Development Area	TBD	Not Identified	TBD
42	Tote Road	Impact Area	N7971941 E505523	Installation of a heated temporary structure for bulk emulsion truck parking during cold weather months (Temporary Factory Site)	Minor leveling and grading within Potential Development Area	TBD	Not Identified	TBD

### 3.1 INFRASTRUCTURE LAYOUT AT END OF 2018

Site layouts for Milne Port and Mary River Mine Site can be found in Appendix A of this document.

The survey drawings and calculated areas as defined in the 2015 Montieth and Sutherland Survey Plans remain valid for 2018.

## **SECTION 4.0 - MINING AND EXPLORATION ACTIVITIES**

### 4.1 EXPLORATION ACTIVITIES AND DRILLING PLANS

The scope of Baffinland's Type 'B' Licence (2BE-MRY1421) 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 2018 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 2018 have not yet been finalized. However as a minimum, activities will include:

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

Operation of the Steensby Inlet Camp and Mid Rail Camp are not at this time anticipated to be required during 2018. A new exploration camp at the Ege Bay location is being evaluated.

It is anticipated that there will be an exploration drilling program on Deposits 1, 2, and 3. Once proposed drilling locations are finalized, this information will be provided to QIA, NWB, INAC, and others.

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

An estimate of the breakdown of ore vs. waste mined from Deposit No. 1 by month during 2018 is provided in Table 4-1 below:

**Table 4-1: Mine Forecast 2018**

Month	Ore Mined (wmt)	Waste Mined (wmt)	Total Mined (wmt)
January	536,606	160,982	697,588
February	496,515	148,955	645,470
March	552,026	165,608	717,634
April	483,609	145,083	628,691
May	407,573	122,272	529,845
June	435,248	130,574	565,822
July	450,343	135,103	585,446
August	500,381	150,114	650,496
September	396,839	396,839	793,677
October	515,506	515,506	1,031,012
November	424,547	573,138	997,685

Month	Ore Mined (wmt)	Waste Mined (wmt)	Total Mined (wmt)
December	440,271	594,366	1,034,636
<b>Total</b>	<b>5,639,464</b>	<b>3,238,539</b>	<b>8,878,003</b>

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

Ore shipping during 2018 will occur during the open water season from July to October. The expected total shipping quantities for 2018 are shown in Table 4-2 below.

**Table 4-2: Ore Shipping Forecast 2018**

Month	Lump Ore Shipped (wmt)		Fines Shipped (wmt)		Total Shipped (wmt)	
	Milne Inlet	Steensby Inlet	Milne Inlet	Steensby Inlet	Milne Inlet	Steensby Inlet
January	0	0	0	0	0	0
February	0	0	0	0	0	0
March	0	0	0	0	0	0
April	0	0	0	0	0	0
May	0	0	0	0	0	0
June	0	0	0	0	0	0
July	514,500	0	0	0	514,500	0
August	2,131,500	0	0	0	2,131,500	0
September	441,000	0	808,500	0	1,249,500	0
October	0	0	304,500	0	304,500	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
<b>TOTAL</b>	<b>3,087,000</b>	<b>0</b>	<b>1,113,000</b>	<b>0</b>	<b>4,200,000*</b>	<b>0</b>

Note:

\*In the event that improvements in operational performance make additional volume potentially achievable, Baffinland will consult with the NIRB (and other parties as required) to seek acceptance of an increase in shipping during the 2018.

#### 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 2018 are provided in Table 4-3, below. The expected quarterly quantities of each specified substance per quarry site and borrow location is provided also in Table 4-3, below.



Table 4-3: 2018 Quarry and Borrow Pit Quantities

Quarry Summary	Km Location	Permitted	Q1	Q2	Q3	Q4	Total	Estimated Surface Area Increase	Estimated Breakdown Of Specified Substances
UNITS			m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>2</sup>	
Q1	1	Permitted	50,000	175,000	175,000	50,000	<b>450,000</b>	30,000	Rock
Q5	4	Proposed	0	60,000	60,000	60,000	<b>180,000</b>	15,000	Rock
Q7	7	Permitted	10,000	10,000	10,000	10,000	<b>40,000</b>	20,000	Rock
Q11	21	Permitted	10,000	10,000	10,000	10,000	<b>40,000</b>	20,000	Rock
Q19	93.5	Permitted	0	10,000	15,000	15,000	<b>40,000</b>	18,000	Rock
QMR2	102	Permitted	50,000	75,000	75,000	50,000	<b>250,000</b>	15,625	Rock
Km 2	2	Permitted	1,000	1,000	0	1,000	<b>3,000</b>	1,500	Granular
Km 97	97	Permitted	1,000	1,000	0	1,000	<b>3,000</b>	1,500	Granular
<b>Total</b>			<b>122,000</b>	<b>768,500</b>	<b>835,000</b>	<b>670,500</b>	<b>2,396,000</b>	<b>818,625</b>	

Notes:

1. 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.
2. The final schedule for the issuance of Quarry and Borrow Source Management Plans for proposed new quarry and borrow areas is not finalized at this time (October 2017).
3. It is noted D1Q1 and D1Q2 will also be used as a source of aggregate in 2018 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.

## SECTION 5.0 - ANNUAL QUANTITIES OF SOLID WASTE

### 5.1 SOLID WASTE DISPOSAL

The expected annual quantity of solid wastes to be deposited during 2018 is detailed is established from survey volumes measured in 2015, 2016 and 2017, as well as an analysis of proposed activities. Estimated quantities of solid waste to be deposited in approved waste storage areas are shown in the Table 5-1 below.

Table 5-1: Annual Volume of Solid Waste to be Deposited in Waste Storage Areas in 2018

Property Section	Waste Storage Area	Volume of Solid Waste to be disposed of (m <sup>3</sup> )
<i>e.g. Milne Port/Tote Road/Mine Site</i>	-	
Mine Site	Landfill	8,000
<b>TOTAL</b>		<b>8,000</b>



## SECTION 6.0 - EXPECTED USES OF WATER

### 6.1 WATER USE

The Amended No.1 Type 'A' Water Licence 2AM-MRY1325, and the construction Type 'B' Water Licence, 8BC-MRY1416, permits the 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 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 (m <sup>3</sup> )
Milne Port (Milne Inlet)	Phillips Creek (Summer)	71° 52' 53.3" N 80° 56' 04.0" W	134,130 m <sup>3</sup> /year
	Km 32 (Winter)	71° 30' 39.5" N 80° 14' 54.4" W	
Mine Site (Mary River)	Camp Lake	71° 19' 38.6" N 79° 22' 57" W	240,000 m <sup>3</sup> /year
Steensby Port (Steensby Inlet)	ST 347 km Lake	N/A	0 m <sup>3</sup> /year
	3 km Lake	N/A	
<b>TOTAL</b>			<b>371,130 m<sup>3</sup>/year</b>

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 1,500m<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**

Property Section	Water Source Name	Water Source Location		Daily Water Take Proposed for Dust Suppression(m <sup>3</sup> /day)	Restrictions
		Latitude	Longitude		
Milne Port	Phillip's Creek	71° 52' 53.3" N	80° 56' 04.0" W	212	None
Milne Port	Km 32 Lake	71° 30' 39.5" N	80° 14' 54.4" W	364	
Tote Road	CV128	71° 47' 35.1" N	80° 36' 41.7" W	579.5	None
Tote Road	CV099	71° 38' 21.7" N	80° 22' 46.6" W	110	June-July only during low flow

Property Section	Water Source Name	Water Source Location		Daily Water Take Proposed for Dust Suppression(m <sup>3</sup> /day)	Restrictions
		Latitude	Longitude		
					(<mean flow) years
Tote Road	CV087	71° 34' 10.0" N	80° 19' 41.6" W	90	June-July only during low flow (<mean flow) years
Tote Road	CV078	71° 31' 51.9" N	80° 16' 07.8" W	75	June-July only during low flow (<mean flow) years
Tote Road	Katiktok 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	120	June-July only during low flow (<mean flow) years
Tote Road	CV217	71° 23' 51.4" N	79° 48' 50.9" W	130	None
Tote Road	Muriel Lake	71° 22' 18.5" N	79° 39' 24.3" W	212	None
Tote Road	David Lake	71° 19' 38.6" N	79° 22' 57.0" W	132	None
Tote Road	BG17	71° 21' 19.8" N	79° 34' 44.0" W	75	June-July only during low flow (<mean flow) years
Tote Road	CV223 (Tom River)	71° 19' 40.5" N	79° 26' 15.8" W	135	None
Mine Site	Camp Lake	71° 19' 38.6" N	79° 22' 57" W	86	None

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

## SECTION 7.0 - 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 2018 are detailed in Table 7-1 below.

**Table 7-1: Materials to be shipped out in 2018**

Property Section	Equipment/ Material Item	Owner	Estimated Annual Amount of Equipment and Material (tonne)	Estimated Annual Revenue Tonnes
e.g. Milne Port/Mine Site	Description of the equipment or the material*	e.g. BIM/Third Party	Estimated total annual amount of equipment and material (tonne)	Estimated amount of revenue tonnes assigned to the shipping of equipment or material
Milne Port	Batteries	BIMC	46	-
Milne Port	Hydro Carbon Contaminated Material	BIMC	105	-
Milne Port	Waste Oil	BIMC	632	-
Milne Port	Waste Fuels	BIMC	47	-
Milne Port	Waste Grease	BIMC	17	-
Milne Port	Waste Hazardous Liquids	BIMC	205	-
Milne Port	Waste Aerosol Canisters	BIMC	1.3	-
Milne Port	Contaminated Containers/Solids	BIMC	163	-
Milne Port	Misc Hazardous Materials	BIMC	128	-

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).

## SECTION 8.0 - MATERIALS TO BE SHIPPED TO THE PROPERTY

At least two bulk fuel deliveries will occur during the 2018 sealift. 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 is as follows:

**Table 8-1: 2018 Anticipated Fuel Delivery**

	Diesel	Jet A
Total Bulk Fuel Delivery	63 ML	3 ML

Materials, equipment, supplies, buildings and machinery to support construction and operations through 2018 will arrive on the 2018 sea lift include:

**Table 8-2: Mobile and Mechanical Equipment to be received during 2018**

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Copper Ground Conductor	Baffinland	1 x 20' container	3
Milne Port	1kV 3/C 350MCM cable	Baffinland	10 x 300m reels	25
Milne Port	5kV 3/C 350MCM cable	Baffinland	1 x 700m reel	7
Milne Port	5kV 3/C 750MCM cable	Baffinland	14 x 500 m reels	125
Milne Port	RO/RO Truck + VAC for RO/RO - UNIT 1374	Nuna	1	30
Milne Port	Bins for RO/RO (2 x GARBAGE BINS)	Nuna	2	10
Milne Port	Bins for RO/RO (2 x GARBAGE BINS)	Nuna	2	10
Mine/ Milne Port	Busses 42 passenger	Nuna	3	24
Mine/ Milne Port	Lighting plants	Nuna	10	8
Mine Site	Crane 80T	EBC	1	43
Mine Site	Crane basket	EBC	1	1
Mine Site	Crane 200T crawler	EBC	2	100
Mine Site	Pick-up 4x4 diesel	EBC	20	63
Mine Site	Fuel truck 10,000 L	EBC	1	14
Mine Site	Bus 48 passengers	EBC	2	16
Mine Site	Mechanic truck	EBC	1	12
Mine Site	Cement silo	EBC	1	30
Mine Site	Mobile concrete plant	EBC	1	15
Mine Site	Concrete truck	EBC	2	52
Mine Site	Explosive storage facilities 8x16x7	EBC	1	11
Mine Site	Explosive storage facilities 20x12x7	EBC	1	17
Mine Site	Explosive storage facilities 20x8x7	EBC	1	13
Mine Site	Explosive storage facilities 28x12x7	EBC	2	46
Mine Site	Diesel tank 22,500 L	EBC	1	3
Mine Site	Diesel tank 10,000 L	EBC	2	2
Mine Site	Tower light 4,000 W	EBC	10	7
Mine Site	Screener power screen	EBC	1	40
Mine Site	Heater (Flagro)	EBC	2	4
Mine Site	Primary crusher frame	EBC	1	57

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Mine Site	Primary crusher bin	EBC	1	47
Mine Site	Cone crusher	EBC	1	67
Mine Site	Inclined screen	EBC	1	46
Mine Site	Screener	EBC	1	40
Mine Site	Conveyors	EBC	4	47
Mine Site	Spare parts trailers	EBC	1	28
Mine Site	Gen-set trailers	EBC	1	28
Mine Site	Loader C-988	EBC	1	50
Mine Site	Tool truck	EBC	1	14
Mine Site	Skid Steer CAT 236B	EBC	1	3
Mine Site	Bucket Lift	EBC	1	15
Mine Site	Tower light	EBC	4	4
Mine Site	Pick-up 4x4 diesel	EBC	5	16
Mine Site	Water tank 50,000 L	EBC	1	3
Mine Site	Gas tank 50,000 L	EBC	2	2
Mine Site	Water tank 10,000 L	EBC	1	3
Mine Site	Gas tank 10,000 L	EBC	1	1
Mine Site	Air compressor	EBC	1	22
Mine Site	Pallets with 2 concrete blocks	EBC	7	238
Mine Site	Electrical sub-station	EBC	3	8
Mine Site	Jaw crusher operator's cabin	EBC	1	2
Mine Site	Dynamite truck	EBC	2	20
Mine Site	Methanol	EBC	110	110
Mine Site	Calcium	EBC	2500	2500
Mine Site	Board insulation 50mm (Styrofoam)	EBC	635	48
Mine Site	Safety barrier (New Jersey)	EBC	100	204
Mine Site	Culvert TTOG 600mm	EBC	50	2
Mine Site	Culvert TTOG 900mm L6m	EBC	200	15
Mine Site	Culvert TTOG 900mm L9m	EBC	115	8
Mine Site	Culvert TTOG 1200mm	EBC	143	14
Mine Site	Culvert TTOG 1500mm	EBC	66	8
Mine Site	Footing concrete bloc	EBC	58	979
Mine Site	Concrete bags	EBC	67	101
Mine Site	Container for drilling accessories	EBC	13	195

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Boom truck 26T	EBC	1	14
Milne Port	Scissors lift	EBC	2	6
Milne Port	Platform truck	EBC	1	15
Milne Port	Bucket Lift 100'	EBC	1	15
Milne Port	Explosive storage facilities 20x8x7	EBC	2	26
Milne Port	Diesel tank 22,500 L	EBC	1	3
Milne Port	Diesel tank 10,000 L	EBC	2	2
Milne Port	Tower light 4 000 W	EBC	20	14
Milne Port	Heater (Flagro)	EBC	2	4
Milne Port	Generator 114 kW	EBC	1	3
Milne Port	Drilling Rig LB 36-410 (rented)	EBC	1	82
Milne Port	Piling and drilling Rig LRB 355 (rented)	EBC	1	76
Milne Port	Oscillator VRM KL (rented)	EBC	1	17
Milne Port	Loader C-980	EBC	1	50
Milne Port	Drill Rig T40R driller	EBC	1	35
Milne Port	Pick-up 4x4 diesel	EBC	5	16
Milne Port	Gas tank 50,000 L	EBC	1	1
Milne Port	Air compressor	EBC	1	22
Milne Port	Conveyor magnet	EBC	1	5
Milne Port	Dynamite truck	EBC	1	10
Milne Port	Board insulation 50mm (Styrofoam)	EBC	35	3
Milne Port	Non-woven Geotextile (bundle of 3 rolls)	EBC	97	126
Milne Port	Culvert TTOG 600mm	EBC	59	3
Milne Port	Culvert TTOG 900mm L6m	EBC	272	20
Milne Port	Culvert TTOG 900mm L9m	EBC	200	15
Milne Port	Culvert TTOG 1200mm	EBC	150	15
Milne Port	Culvert TTOG 1500mm	EBC	100	12
Milne Port	Culvert TTOG 1800mm	EBC	124	17
Milne Port	Piles - 610 mm x 19,1 mm (Ore dock) 21m	EBC	60	107
Milne Port	Piles - 610 mm x 19,1 mm (Ore dock) 30m	EBC	18	46
Milne Port	Drive House piles cap + misc	EBC	4	305
Milne Port	Lump and feed conveyor piles cap + misc	EBC	1	114
Milne Port	Tail and Transfer piles cap + misc	EBC	1	79
Milne Port	Container for drilling accessories	EBC	13	195

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Container for crushing accessories	EBC	13	195
Milne Port	Dozer D6 - Type Caterpillar D6 R II	Besix	1	24
Milne Port	Wheel loader - Type Caterpillar 966G - 4m"	Besix	1	23
Milne Port	Trucks - Articulated dumper 38T/23 m3 - Type Terex TA40	Besix	5	154
Milne Port	Compactor - 9.2T Articulated tandem roller w/ 2 vibratory drums - Type Hamm HD 90	Besix	1	8
Milne Port	85T Track excavator w/ long stick	Besix	2	173
Milne Port	20T 6x4 Tipper Truck	Besix	1	26
Milne Port	Conveyor belt	Besix	1	25
Milne Port	Ripper	Besix	2	
Milne Port	Diesel Hammer D180, Vibrohammer - Type 5.9T, 50KNm, Hydraulic hammer IHC S50/90, 71KW Power pack for EMV300 vibro hammer	Besix	1	89
Milne Port	Crawler crane 350 ton - Type Liebherr LR1400-2	Besix	2	622
Milne Port	Clamshell	Besix	1	15
Milne Port	250T Lifting crawler crane	Besix	1	210
Milne Port	Mobile crane 32T	Besix	1	24
Milne Port	Mixer Truck 6/9 m3	Besix	1	12
Milne Port	Bucket 0.5/1 m3	Besix	1	0
Milne Port	80T extensible semi-trailer	Besix	2	46
Milne Port	125 KW/170 HP tractor for 80T semi-trailer	Besix	2	19
Milne Port	20T Flatbed truck w/ truck mounted crane	Besix	1	12
Milne Port	Oxy fuel cutting systems, induction heating system, 400A welding generators, welding sets, 7m3/min / 250cft/min mobile compressors	Besix	1	7
Milne Port	7m3/min / 250cft/min mobile compressors, set of 50 mm PVC perforated tubes	Besix	1	10
Milne Port	Generator 150 kVA, Generator 250 kVA, Generator 30 kVA, Generator 100 kVA	Besix	1	19
Milne Port	Maintenance truck (water/fuel/maintenance)	Besix	1	5
Milne Port	Piling Frame	Besix	2	12
Milne Port	Steel Piles Diam 1700 mm	Besix	69	2534
Milne Port	Steel Piles Diam 1800 mm	Besix	73	3989

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Sheetpiles AZ26 - 700	Besix	72	459
Milne Port	Tie-rod dia 800 mm	Besix	55	386
Milne Port	Tie-rod dia 800 mm	Besix	14	92
Milne Port	Piles dia 1400 mm	Besix	14	365
Milne Port	Piles dia 1117 mm	Besix	6	33
Milne Port	Piles dia 1400 mm	Besix	12	306
Milne Port	Temporary structural steel access platform	Besix	11	346
Milne Port	Temporary structural steel quay	Besix	10	304
Milne Port	Steel trolley	Besix	1	50
Milne Port	Engine system for mobile trolley movement	Besix	2	8
Milne Port	Walkway	Besix	250 lm	100
Milne Port	Concrete mattresses scour protection	Besix	337	4550
Milne Port	Container with workshop materials and spare parts	Besix	10	319
Milne Port	Containers with material for offices, site small facility tools	Besix	10	319
Milne Port	Container office	Besix	4	12
Milne Port	Container with lunch room	Besix	2	6
Milne Port	Fenders SCN 2000, bollards, handrail, guardrail	Besix	4	57
Milne Port	Crane (Crawler +/- 440t)	Thyssen Krupp	1	1440
Milne Port	Crane (Crawler +/- 300t)	Thyssen Krupp	2	480
Milne Port	50-80T hydraulic crane	Thyssen Krupp	1	165
Milne Port	Telehandler 10,000lbs	Thyssen Krupp	3	45
Milne Port	Manlifts 80'	Thyssen Krupp	3	16
Milne Port	Manlifts 125'	Thyssen Krupp	3	20
Milne Port	Diesel Welding machines 400-500 amps	Thyssen Krupp	8	1
Milne Port	Office Trailer 12' x 60' (tk IS sub-contractors)	Thyssen Krupp	4	10
Milne Port	Washrooms 40' x 12' (tkIS sub-contractors)	Thyssen Krupp	2	8
Milne Port	tk IS office 40' x 12' (shipment 2017)	Thyssen Krupp	2	8
Milne Port	tk IS lunch trailer 40'x12' (shipment 2017)	Thyssen Krupp	1	8
Milne Port	tk IS Washroom 12' x 40' (shipment 2017)	Thyssen Krupp	1	8
Milne Port	Tk IS office 24' x60' (shipment 2018)	Thyssen Krupp	4	10
Milne Port	Portable Toilet	Thyssen Krupp	3	0



Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Diesel Tower Lights	Thyssen Krupp	12	1
Milne Port	Diesel Generators 135kw (shipment 2017)	Thyssen Krupp	2	3
Milne Port	Diesel Generators 60+kw	Thyssen Krupp	2	2
Milne Port	Diesel Generator +/- 15-20kw	Thyssen Krupp	4	1
Milne Port	Portable Heated and Cooled Trailer (To locate at work fronts for heating and lunch)	Thyssen Krupp	4	8
Milne Port	400,000 BTU Indirect Fired Diesel Heater	Thyssen Krupp	18	0
Milne Port	53' Flat Bed trailer (3) + 85' extendable trailer (1)	Thyssen Krupp	4	15
Milne Port	Diesel Heavy Truck for hauling material on site	Thyssen Krupp	2	5
Milne Port	3/4tons diesel truck (tk IS sub-contractors)	Thyssen Krupp	7	3
Milne Port	3/4tons diesel truck (tk IS)	Thyssen Krupp	4	3
Milne Port	3/4tons passenger vans	Thyssen Krupp	3	3
Milne Port	Scaffolding,	Thyssen Krupp	1	
Milne Port	Crane mats (full load)	Thyssen Krupp	1	
Milne Port	Heated shelters (~60'x100') for storage of parts	Thyssen Krupp	3	
Milne Port	Large fuel tank for Generators	Thyssen Krupp	3	
Milne Port	Potable fuel tank equipment	Thyssen Krupp	8	
Milne Port	SPMT axle lines	Thyssen Krupp	64	24
Milne Port	SPMT power packs	Thyssen Krupp	4	7
Milne Port	RoRo ramps (set)	Thyssen Krupp	1	10
Milne Port	Ballast pumps (set)	Thyssen Krupp	1	
Milne Port	Shipper's Own Containers (SOC) with spares, tools, and packing materials	Thyssen Krupp	6	
Milne Port	Skidbeams, skidshoes and skidtracks for jacking and skidding of car dumper (set)	Thyssen Krupp	1	
Milne Port	Climbing jack set	Thyssen Krupp	1	
Milne Port	Lower part pivot point for shiploader	Thyssen Krupp	1	7
Milne Port	Steel tub, car dumper, car dumper hall, including e-house	Thyssen Krupp	1	965
Milne Port	Indexer building	Thyssen Krupp	1	273
Milne Port	Support structure for rail car dumper	Thyssen Krupp	1	90
Milne Port	Apron feeder	Thyssen Krupp	1	102
Milne Port	Hopper	Thyssen Krupp	1	62
Milne Port	Crusher Building	Thyssen Krupp	1	1320

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Screening Building	Thyssen Krupp	1	1350
Milne Port	Transfer conveyor bent frame	Thyssen Krupp	1	101
Milne Port	Transfer conveyor tubular section	Thyssen Krupp	1	282
Milne Port	Screen feed conveyor bent	Thyssen Krupp	1	15
Milne Port	Screen feed conveyor tubular section	Thyssen Krupp	1	256
Milne Port	Screen feed conveyor misc	Thyssen Krupp	1	114
Milne Port	Oversize collection conveyor bent	Thyssen Krupp	1	17
Milne Port	Oversize collection conveyor tubular section	Thyssen Krupp	1	183
Milne Port	Oversize collection conveyor misc	Thyssen Krupp	1	86
Milne Port	Platform for fines collection conveyor 2335-CV-001	Thyssen Krupp	1	25
Milne Port	Lump collection conveyor bent	Thyssen Krupp	1	3
Milne Port	Lump collection conveyor tubular section	Thyssen Krupp	1	85
Milne Port	Lump collection conveyor misc	Thyssen Krupp	1	36
Milne Port	Stockpile #2 yard conveyor drive station	Thyssen Krupp	1	600
Milne Port	Stockpile #2 yard conveyor table	Thyssen Krupp	1	200
Milne Port	Stockpile #2 yard conveyor misc	Thyssen Krupp	1	512
Milne Port	Shipload feed conveyor bent	Thyssen Krupp	1	52
Milne Port	Shipload feed conveyor table + truss	Thyssen Krupp	1	624
Milne Port	Reclaim apron feeders module assembly under stockpile	Thyssen Krupp	1	500
Milne Port	Crusher services building	Thyssen Krupp	1	18
Milne Port	Concrete precast block for conveyors	Thyssen Krupp	1	1598
Milne Port	Reclaim tunnel	Thyssen Krupp	1	80
Milne Port	Misc. piping/mechanical equipment	Nuna	4 x 20' containers / 1x 40'	120
Milne Port	Genset modules	Baffinland	4	180
Milne Port	E-house	Baffinland	1	50
Mine Site	Mobile Primary Crusher Unit	Baffinland	1	231
Mine Site	Mobile Fleet- 793 Haul Truck	Baffinland	1	125
Mine Site	994 Loader	Baffinland	1	240
Mine Site	992 Loader	Baffinland	4	399
Mine Site	988 Loader	Baffinland	1	51
Mine Site	D10 Dozer	Baffinland	1	70

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Service truck (including a space cab) F250	Baffinland	1	10
Milne Port	Passenger bus	Baffinland	2	20
Milne Port	Telehandler	Baffinland	1	20
Milne Port	Front End Loader	Baffinland	1	15
Mine Site	Fuel/Lube Truck	Baffinland	1	15
Milne Port	Mobile Fleet- 745C Rock Truck - TFK00727	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK01304	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK01306	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK01308	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK00734	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK00743	Baffinland	1	40.3
Milne Port	Mobile Fleet- 745C Rock Truck - TFK01353	Baffinland	1	40.7
Milne Port	Mobile Fleet- 950M Loader - JIS00277	Baffinland	1	19.9
Milne Port	Mobile Fleet- 950M Loader - JIS00251	Baffinland	1	19.9
Milne Port	Mobile Fleet- CS56B - M4M00243	Baffinland	1	11.5
Milne Port	Water Tank Main Unit	Baffinland	1	10.0
Milne Port	Water Tank Crate	Baffinland	1	0.2
Milne Port	349FL Excavator Spare Ripper	Baffinland	1	1.7
Milne Port	349FL Excavator Spare Ripper	Baffinland	1	1.7
Milne Port	336EL Excavator Spare Bucket (2yd)	Baffinland	1	1.5
Milne Port	336EL Excavator Spare Bucket (2yd)	Baffinland	1	1.5
Milne Port	336EL Excavator Spare Ditching Bucket	Baffinland	1	2.2
Milne Port	336EL Excavator Spare Ditching Bucket	Baffinland	1	2.2
Milne Port	336EL Excavator Spare Ripper	Baffinland	1	0.8
Milne Port	336EL Excavator Spare Ripper	Baffinland	1	0.8
Milne Port	336EL Excavator Spare Ripper	Baffinland	1	0.8
Milne Port	980M Loader Spare Rock Bucket (8yd)	Baffinland	1	3.2
Milne Port	980M Loader Spare GP Bucket	Baffinland	1	3.6
Milne Port	980M Loader 72" Forks	Baffinland	1	3.2
Milne Port	966M Loader Spare Buckets GP (5.5 yd)	Baffinland	1	2.3

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	966M Loader Fork (72")	Baffinland	1	2.5
Milne Port	966M Loader Spare Bucket RB (4.7yd)	Baffinland	1	2.3
Milne Port	950M Loader Spare GP Bucket (4.25yd)	Baffinland	1	1.5
Milne Port	950M Loader Snow Bucket (7yd)	Baffinland	1	2.3
Milne Port	950M Loader Snow Bucket (7yd)	Baffinland	1	2.3
Milne Port	950M Loader Snow Plow 54"	Baffinland	1	2.0
Milne Port	950M Loader Snow Plow 54"	Baffinland	1	2.0
Milne Port	950M Loader Side Wing	Baffinland	1	2.0
Milne Port	950M Loader Side Wing	Baffinland	1	2.0
Milne Port	950M Jib Booms	Baffinland	1	0.9
Milne Port	950M Jib Booms	Baffinland	1	0.9
Milne Port	D8T Ripper Shanks	Baffinland	1	0.4
Milne Port	745C Tailgates	Baffinland	5	11.3
Milne Port	D6T Rear Winch	Baffinland	1	1.5
Milne Port	136# AHH RE RAIL	Contractor	6612.9	13196
Milne Port	115# RE Rail	Contractor	21	21
Milne Port	Pandrol Victor Tie Plates (preplated on ties)	Contractor	1484.7	1498
Milne Port	Screw Spikes Bags (30/bag)	Contractor	49485.8	49502
Milne Port	E-Clip Fastener Bags (25kg - 40 bags/pallet)	Contractor	357	557
Milne Port	11" Tie Plates Pallet (300/pallet)	Contractor	2.1	4
Milne Port	#1 untreated HW Tie (25/bundle)preplate	Contractor	5938.8	6289
Milne Port	weld kits (25/ pallet)	Contractor	334.6	351
Milne Port	Keg track spikes (48/pallet)	Contractor	2.1	2
Milne Port	joint bar (100/pallet) 136#	Contractor	9.1	30
Milne Port	Keg bolts & washers (48/pallet)	Contractor	4.2	11
Milne Port	turnout rail 136# AHH RE	Contractor	47.6	95
Milne Port	joint bar 115#	Contractor	25.2	25
Milne Port	HW turnout package ties	Contractor	19.6	121
Milne Port	HW turnout package ties	Contractor	5.6	48
Milne Port	TO frog	Contractor	19.6	147
Milne Port	TO frog	Contractor	5.6	22
Milne Port	Sliding Derail	Contractor	3.5	4

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	Bumping Post	Contractor	3.5	6
Milne Port	C-Can signaling materials	Contractor	2.1	52
Milne Port	136# RE RAIL guardrail	Contractor	9.8	10
Milne Port	Crossing Panel	Contractor	63	91
Milne Port	Timber Screws (1 Pallet)	Contractor	630	630
Milne Port	10'x44' wheeled lunchtrailer	Contractor	2	28
Milne Port	Herman Nelson 6700	Contractor	4	5
Milne Port	Bear Proof Garbage Bin	Contractor	2	1
Milne Port	C-Container 8'x20'	Contractor	2	43
Milne Port	55KW Generator	Contractor	2	2
Milne Port	Generator enclosure	Contractor	2	0
Milne Port	40'x8' C-Container	Contractor	9	238
Milne Port	Mark IV Tamper	Contractor	3	95
Milne Port	Knox Kershaw KBR 940 Regulator	Contractor	3	44
Milne Port	Pettibone 445F w/ high rail	Contractor	3	0
Milne Port	Rail car mover	Contractor	3	2
Milne Port	Ballast Car	Contractor	23	582
Milne Port	CAT 950 loader	Contractor	3	46
Milne Port	CAT 988 loader	Contractor	2	91
Milne Port	Telehandler	Contractor	4	63
Milne Port	Skidsteer	Contractor	2	11
Milne Port	Clipping Machine	Contractor	6	1
Milne Port	Diesel Rail Heater Drapeau 2	Contractor	2	24
Milne Port	Herman Nelson 6700 all in one	Contractor	3	4
Milne Port	Herman Nelson extreme cold BT400NEX-D4A	Contractor	10	3
Milne Port	Herman Nelson Flagro-1000 trailer mount	Contractor	2	4
Milne Port	light plants	Contractor	24	29
Milne Port	light system for office (in C-Can)	Contractor	2	6
Milne Port	F-350 crew cab 4x4 Diesel	Contractor	10	48
Milne Port	F-350 crew cab w/ fuel tank	Contractor	10	43
Milne Port	Crew Van 4x4 15 passenger	Contractor	8	32
Milne Port	F-550 Mechanic Truck	Contractor	3	27
Milne Port	F-450 CSV trucks	Contractor	5	38

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Milne Port	power pack 5/10 gallon per minute	Contractor	10	2
Milne Port	Kennworth 880 w/ winch	Contractor	2	37
Milne Port	Kennworth 880 w/ grapple	Contractor	1	26
Milne Port	highway trailer 48 foot	Contractor	2	17
Milne Port	highway trailer 40 foot lowbed	Contractor	2	16
Milne Port	trailer w/ rail	Contractor	2	21
Milne Port	Kennworth 880 w/hirail & crane	Contractor	1	32
Milne Port	Kennworth 370 fuel & lube truck (filled)	Contractor	2	82
Milne Port	Kennworth 880 Dump Truck w/ hirail	Contractor	2	35
Milne Port	Geismar Power Jack Model RV100	Contractor	3	5
Milne Port	Air Compressor	Contractor	2	4
Milne Port	Track Welding Truck	Contractor	3	123
Milne Port	Excavator	Contractor	3	111
Milne Port	Container w/ 3 Rail Puller, 3 Threader, 3 Boring Machine misc. small tools	Contractor	1	22
Milne Port	Track Welding Truck	Contractor	3	123
Milne Port	Bedroom wings for port constr camp expansion	Horizon	1 lot	620
Milne Port	Washcars/changerooms for port constr. Camp expansion	Horizon	12 ea	185
Milne Port	Dry non-perishable food containers	Baffinland	36 x 20' containers	360
Milne Port	Refrigerated frozen food containers	Baffinland	24 x 20' containers	240
Milne Port & Mine Site	Misc. camp replacement and repair parts	Baffinland	10 x 20' containers	100
Mine Site	FRP water tanks for 800 person camp	Baffinland	4 tanks	20
Mine Site	Rolling Stock Workshop	Baffinland	1	800
Mine Site	Rolling Stock Workshop Crane	Baffinland	1	12
Mine Site	Rolling Stock Workshop Concrete	Baffinland	1 lot	750
Mine Site	Rolling Stock Workshop - Lube System including tankage	Baffinland	1 lot	18
Mine Site	Rolling Stock Workshop - Wash System including tankage	Baffinland	1 lot	18
Mine Site	Mine Truck Workshop	Baffinland	1	800
Mine Site	Mine Truck Workshop Crane	Baffinland	1	12
Mine Site	Mine Truck Workshop Concrete	Baffinland	1 lot	750

Property Section	Material Item	Owner	Quantity	Revenue Tonne
<i>e.g. Milne Port or Mine Site</i>	<i>Description of the material*</i>		<i>Quantity of the material to be shipped to and stored on the Property (including unit of measurement)</i>	<i>Estimated amount of revenue tonnes (mt) assigned to the shipping of material</i>
Mine Site	Mine Truck Workshop - Lube System including tankage	Baffinland	1 lot	18
Mine Site	Mine Truck Workshop - Wash System including tankage	Baffinland	1 lot	18
Mine Site	150T Crane	Contractor	1	40
Mine Site	80T Crane	Contractor	1	32
Mine Site	80' JLG	Contractor	2	20
Mine Site	80' JLG	Contractor	2	20
Mine Site	Office trailer	Contractor	2	72
Mine Site	shop	Contractor	1	72
Mine Site	Pick ups	Contractor	3	17
Mine Site	bus	Contractor	1	10
Milne Port & Mine Site	Pickup trucks	Allnorth	2	8
Milne Port	150 T RT crane	Contractor	2	110
Milne Port	100 T RT crane	Contractor	1	50
Milne Port	50T RT Crane	Contractor	1	45
Milne Port	20T Fork Lift	Contractor	4	120
Milne Port	5 T fork Lift	Contractor	2	30
Milne Port	Container handler	Contractor	1	25
Milne Port	Tractors Standard	Contractor	10	80
Milne Port	Tractors Heavy Duty ( 80 T )	Contractor	8	64
Milne Port	Tractor Trailers Standard	Contractor	20	400
Milne Port	Tractor trailers extended ( Carry 40 m L Material )	Contractor	16	400
Milne Port	Tractor trailers Low Boy	Contractor	4	120
Mine Site	90 Tonne Mining Truck	BIM	3	
Mine Site	Production Drill	BIM	2	

Additional supplies to support construction and operations through the remainder of 2018 and 2019 will arrive on the 2018 sea lift include:

- Delivery of ammonium nitrate (AN), up to 2,573 m<sup>3</sup> (4,452 tonnes) to be stored on-site in 2018
- Delivery of pre-packaged explosives, up to 324,000 kg to be stored on-site in 2018
- Delivery of maintenance parts.

- Delivery of consumables (lubricants, grease, detergents, boosters, EZ Dets, dry goods, food, household supplies, etc.).

## **SECTION 9.0 - 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 2017 with the Annual Reports, with the exception of the Milne Port Oil Pollution Emergency Plan (OPEP) submitted in June 2017 and the Quarry Management Plans for Quarry Q1 and QMR2 in July 2017. An extensive list of the current plans for the project that is presented in Table 9-1 below.

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

<b>Document Number</b>	<b>Plan Name</b>	<b>Version</b>
BAF-PH1-830-P16-0002	Air Quality and Noise Abatement Management Plan	March 2016
BAF-PH1-830-P16-0006	Cultural Heritage Resource Protection Plan	March 2016
SD-STD-002	Hazard Identification and Risk Assessment Procedure	December 2010
N/A	EHS Framework Standard	December 2010
H337697-0000-01-126-0002	Health and Safety Management Plan	January 2012
SD-SEMP-003	Human Resources Management Plan	December 2010
BAF-PH1-830-P16-0027	Terrestrial Environmental Management and Monitoring Plan	March 2016
BAF-PH1-830-P16-0025	Stakeholder Engagement Plan	March 2016
BAF-PH1-830-P16-0023	Roads Management Plan	March 2016
BAF-PH1-830-P16-0024	Shipping and Marine Wildlife Management Plan	March 2016
N/A	Blasting Management Plan (see Note 1)	April 2013
BAF-PH1-830-P16-0004	Borrow Pits and Quarry Management Plan	March 2014
N/A	Borrow Source Management Plan (See Note 2)	October 2013
BAF-PH1-830-P16-0030	Borrow Source Management Plan - Kilometer 2	October 2014
BAF-PH1-830-P16-0032	Borrow Source Management Plan - Kilometer 97	October 2014
BAF-PH1-830-P16-0035	Borrow Source Management Plan - Kilometer 104	March 2014
H349000-4200-07-245-0001	Quarry Management Plan D1Q1	October 2013
H349000-4200-07-245-0002	Quarry Management Plan D1Q2	October 2013
BAF-PH1-830-P16-0017	Quarry Management Plan Q1	July 2017



Document Number	Plan Name	Version
H349000-3000-07-245-0002	Quarry Management Plan Q11	October 2013
H349000-3000-07-245-0003	Quarry Management Plan Q19	October 2013
H349000-3000-07-245-0001	Quarry Management Plan Q7	October 2013
BAF-PH1-830-P16-0040	Quarry Management Plan QMR2	July 2017
BAF-PH1-840-P16-0002	Emergency Response Plan	March 2017
BAF-PH1-830-P16-0036	Spill Contingency Plan	March 2017
BAF-PH1-830-P16-0008	Environmental Protection Plan	August 2016
BAF-PH1-830-P16-0010	Fresh Water Supply, Sewage and Wastewater Management Plan	March 2016
BAF-PH1-830-P16-0011	Hazardous Materials and Hazardous Waste Management Plan	March 2017
BAF-PH1-830-P16-0012	Interim Closure and Reclamation Plan	March 2016
BAF-PH1-830-P16-0026	Surface Water and Aquatic Ecosystems Management Plan	March 2016
BAF-PH1-830-P16-0001	Surface Water Sampling Program - Quality Assurance and Quality Control Plan	March 2017
BAF-PH1-830-P16-0039	Aquatic Effects Monitoring Plan	October 2015
BAF-PH1-830-P16-0028	Waste Management Plan	March 2017
BAF-PH1-830-P16-0029	Phase 1 Waste Rock Management Plan	April 2014
BAF-PH1-830-P16-0031	Life of Mine Waste Rock Management Plan	April 2014
N/A	Explosives Management Plan (see Note 3)	August 2013
BAF-PH1-830-P16-0013	Milne Port Oil Pollution Emergency Plan (OPEP)	June 2017
BAF-PH1-830-P16-0041	Polar Bear Safety Plan	March 2016
BAF-PH1-830-P16-0037	Exploration Spill Contingency Plan	June 2014
BAF-PH1-830-P16-0038	Exploration Closure and Reclamation Plan	July 2014
BAF-PH1-830-P16-0042	Spill at Sea Response Plan	August 2015

NOTES:

<sup>1</sup> The Blasting Management Plan appears in each quarry-specific management plan.

<sup>2</sup> Discontinued and incorporated into the March 2014 Borrow Pits and Quarry Management Plan.

<sup>3</sup> The Explosives Management Plan is a contractor document.

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

The current version of the Interim Closure and Reclamation Plan (ICRP) for the project has been provided as an appendix to this Work Plan. The provision of additional securities for the 2018 Work Plan is allocated as summarized in Table 9-2 below. Further detail can be found in Appendix B.

**Table 9-2: Mary River Project Total Closure and Reclamation Security Summary<sup>1</sup> – Category 1 Activities**

	A	B	C	D	E	F	G	H
	Authorization	Liability	Global Estimate from 2017/18 ASR (\$)	2017/18 ASR Addendum (\$)	2018/19 ASR Estimate (\$)	Total 'Global' Estimated Security for 2018/19 (\$)	Total Posted (\$)	Adjustment to be Posted (\$)
						C + D + E		F - G
1	Type A 2AM-MRY1325	IOL <sup>2</sup>	48,078,000	9,571,000	18,024,000	75,673,000	61,642,000	14,031,000
2		Crown	1,194,000	-	-	1,194,000	1,210,000	(16,000)
3		Water	1,342,000	42,000	-	1,384,000	-	-
4		Land	47,930,000	9,529,000	18,024,000	75,483,000	-	-
5	<i>Subtotal Type A</i>		49,271,000	9,571,000	18,024,000	76,866,000	62,852,000	14,014,000
6	Type B Exploration 2BE-MRY1421 <sup>3</sup>	IOL	165,000	-	-	165,000	-	165,000
7		Crown	1,082,000	-	-	1,082,000	1,250,000	(168,000)
8		Water	18,000	-	-	18,000	-	-
9		Land	1,229,000	-	-	1,229,000	-	-
10	<i>Subtotal Type B Exploration</i>		1,247,000	-	-	1,247,000	1,247,000	(3,000)
11	DFO Security Associated with Ore Dock	IOL <sup>2</sup>	-	-	-	-	-	-
12		Crown	563,000	-	-	563,000	563,000	-
13		Water	563,000	-	-	563,000	563,000	-
14		Land	-	-	-	-	-	-
15	<i>Subtotal DFO</i>		563,000	-	-	563,000	563,000	-
16	AANDC Land Lease 47H/16-1-2 <sup>4</sup>	IOL <sup>2</sup>	-	-	-	-	-	-
17		Crown	4,975,000	-	-	4,975,000	4,975,000	-
18		Water	-	-	-	-	-	-
19		Land	4,975,000	-	-	4,975,000	4,975,000	-
20	<i>Subtotal AANDC Land Lease</i>		4,975,000	-	-	4,975,000	4,975,000	-
21	<b>GRAND TOTAL</b>		<b>56,056,000</b>	<b>9,571,000</b>	<b>18,024,000</b>	<b>83,651,000</b>	<b>69,637,000</b>	<b>14,011,000</b>

NOTES:

1) Totals rounded to nearest '000 in CAD

2) Security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301

3) As per Mary River Exploration Project Closure and Reclamation Plan (BAF-PH1-830-P16-0038, Rev 1)

4) Posting process for security relating to AANDC Land Lease 47H/16-1-2 phased into a 2-step approach. Phase 1 to be posted November 2016.

5) As per Closure and Reclamation Strategy and Financial Security Estimate for Nunavut Lease #47H/16-1-2 (H349001-2000-07-126-0001, Rev.0)

## SECTION 10.0 - REQUESTED AMENDMENTS TO THE PROVISIONS OF THE LEASE

Tote Road Adjustment Notices (TRANs) and Options Exercise Notices (OENs) will be submitted as per Table 3-1.

The installation of the upgraded IT Towers between Milne Port and the Mine Site requires an OEN to expand the lease boundary, as some of the identified locations encroach on the existing boundary or are within the 50m buffer zone. The OEN for the IT Tower upgrade is provided in Appendix

## SECTION 11.0 - ADDITIONAL REPORTS, INFORMATION OR DATA

It is noted Baffinland anticipates applying for a second amendment to Project Certificate No. 005, and potential corresponding amendment to Type 'A' Water Licence 2AM-MRY1325 in 2018 to support a potential project expansion.

It is noted consideration is being given to changing explosive type being used at the site from a 100% emulsion to an emulsion/AN mix. This change is anticipated to improve product quality and increase blasting efficiency. An environmental study will be completed to ensure that the change being made will not adversely impact the environment.

Additional reports, information or data required to support the 2018 Work Plan is summarized in Table 11-1 below.

**Table 11-1: Additional Reports, Information or Data**

<b>Title</b>	<b>Organization</b>	<b>Date</b>	<b>Annex</b>
<i>Identify the title of the additional report, information or data to be included with the Annual Work Plan.</i>	<i>Disclose the name of the organization that produced the addition report, information or data.</i>	<i>Include the publish date or reference year to the additional report, information or data.</i>	<i>Identify the Annex letter/number corresponding to the additional report, information or data.</i>
Milne Port – Infrastructure Footprint – Work Plan 2018	Knight Piésold on behalf of Baffinland	10 January 2018	Appendix A
Mine Site – Infrastructure Footprint – Work Plan 2018	Knight Piésold on behalf of Baffinland	10 January 2018	Appendix A
2017 Marginal Closure and Reclamation Financial Security Estimate , Rev. 1	Baffinland	-	Appendix B
Interim Closure and Reclamation Plan	Baffinland	BAF-PH1-830-P16-0012	Appendix C
Emergency Response Plan	Baffinland	BAF-PH1-830-P16-0007	Appendix D
Spill Contingency Plan	Baffinland	BAF-PH1-830-P16-0036	Appendix E
OEN – IT Towers Upgrade	Baffinland	10 January 2018	Appendix F

# **Appendix A:**

## **2018 Work Plan Site Layouts**

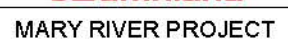
2018 Work Plan – Milne Port Site Layout

2018 Work Plan – Mine Site Layout



	WATER		PROPOSED LAYDOWN AREA 2018 WORK PLAN		FORESHORE LEASE BOUNDARY
	BORROW AREAS		ROAD		PROPOSED 2018 WORK PLAN
	QUARRY AREA		RIVER/STREAM DRAINAGE		PROPOSED IT COMMUNICATIONS UPGRADES
	PERMITTED LAYDOWN AREA		QIA SURFACE COMMERCIAL LEASE IMPACT BOUNDARY		
			POTENTIAL DEVELOPMENT AREA BOUNDARY		

1. COORDINATE GRID IS UTM NAD83 ZONE 17N.
2. TOPOGRAPHY PROVIDED BY EAGLE MAPPING (2005).
3. PLAN BASED ON INFORMATION PROVIDED BY HATCH, DATED (JANUARY 31, 2014, AND OCTOBER 2017).
4. CONTOUR INTERVAL IS 2.5 METRES.



MILNE PORT  
2018 WORK PLAN

***Knight Piésold***  
CONSULTING

P/A NO. NB102-181/43	REF NO. NB18-00018
<div>FIGURE A.1</div> <div>REV 0</div>	

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	CM
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED







## **Appendix B:**

### **2018 Marginal Closure and Reclamation Financial Security Estimate**

**Provided under separate cover**



## **Appendix C:**

**Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012)**

**Management Plans Not Available in Compressed Version**

## **Appendix D:**

**Emergency Response Plan (BAF-PH1-840-P16-0002)**

**Management Plans Not Available in Compressed Version**

## **Appendix E:**

**Spill Contingency Plan (BAF-PH1-830-P16-0036)**

**Management Plans Not Available in Compressed Version**

# **Appendix F**

## **Options Exercise Notices**



January 10, 2017

Stephen Williamson Bathory  
Director, Major Projects, QIA  
P.O. Box 1340  
Iqaluit, NU X0A 0H0

**RE: Communications Network Upgrade Notification and Land Classification  
Amendment (Options Exercise Notice)  
Commercial Lease No. Q13C301**

In accordance with Section 3.2 of the Commercial Lease No. Q13C301 (the Commercial Lease) between the Qikiqtani Inuit Association (QIA) and Baffinland Iron Mines Corporation's (Baffinland), the purpose of this letter is to request an amendment to reclassify Lands (Options Exercise Notice) outside the limits of Tote Road Impact Area (Tote Road), as outlined in the Commercial Lease, and notify the QIA of a planned upgrade to network infrastructure (communication towers) associated with the Mary River Project (Project). It should be noted that this application is a resubmission of the OEN submitted to the QIA on September 22, 2017<sup>1</sup> by Baffinland and addresses information requests outlined in the QIA's response letter<sup>2</sup>.

**Problem with Current Situation**

The network infrastructure was designed for a total throughput of 100MBps but the network has never achieved full capacity. The use of low tower heights and duplicated frequencies are proving to be problematic in achieving proper service levels. The proliferation of wireless point to point solutions, the lack of redundancy in critical connections, lack of storage capacity, bandwidth limitations across the satellite lines, deficient individual usage discipline mechanisms and 'dead-spots' along the Tote Road, coupled with harsh climatic conditions, make the communications network improvement critical to maintain safety and working conditions for the Mary River Project operations.

**Opportunity**

Technological advances have provided several improvement opportunities. Baffinland can access better network systems at more cost effective prices than before. The planned upgrade of network infrastructure has the ability to provide a minimum of 1.6GB of bandwidth (40 times current capacity) using ten new towers, roughly two thirds the existing infrastructure. This upgrade of network infrastructure will be used to provide full coverage along the Tote Road for VHF as well as for cellular LTE (estimated 6 MB/s). The new "Baffinland Cellular system"; an alternative communications path for both data and voice; will be able to be tied into all existing and future vehicles to allow all relevant data, location (via GPS) and

---

<sup>1</sup> Baffinland (2017) Communication Tower Upgrade Notification and Land Classification Amendment (Options Exercise Notice) for Km 88 Communication Tower, under Commercial Lease No. Q13C301. September 22, 2017.

<sup>2</sup> QIA (2017) Response Letter to Baffinland Communication Tower Upgrade Notification and Land Classification Amendment (Options Exercise Notice) for Km 88 Communication Tower. October 13, 2017.



operating performance issues to be communicated to the required dispatch or maintenance departments. The Baffinland Cellular system also allows each vehicle, with the LTE equipment, to act as a mobile Wi-Fi Hotspot for both Baffinland and public land users. The required LTE emergency frequencies and associated licensing have already been approved by Radio Canada and awareness of this ability will be communicated to land users once operational.

Refer to Table 1 below for a summary of the proposed changes to communication towers associated with the upgrade.

**Table 1: Summary of the Proposed Upgrade to Communications Network Towers**

Ref #	Site ID	UTM Coordinates <sup>1,2</sup>	Planned Action
1	KM 00 (Shiploader)	503258 E 7976497 N	Install New
2	Milne Port Camp	503931 E 7976047 N	Existing to be Removed
3	KM 02 (Tote Road)	503768 E 7975435 N	Existing to Remain
4	KM 03 (Tote Road)	503735 E 7974509 N	Remove Existing and Install New
5	KM 07 (Tote Road)	506405 E 7971540 N	Install New
6	KM 13 (Tote Road)	510191 E 7967920 N	Existing to be Removed
7	KM 24 (Tote Road)	517699 E 7961202 N	Existing to be Removed
8	KM 26 (Tote Road)	518584 E 7959689 N	Install New
9	KM 33 (Tote Road)	521629 E 7953158 N	Existing to be Removed
10	KM 40 (Tote Road)	522380 E 7946930 N	Remove Existing and Install New
11	KM 46 (Tote Road)	523536 E 7941398 N	Existing to be Removed
12	KM 49 (Tote Road)	525156 E 7938439 N	Remove Existing and Install New
13	KM 57 (Tote Road)	527197 E 7931591 N	Existing to be Removed
14	KM 61 (Tote Road) <sup>3</sup>	528469 E 7928423 N	Existing to be Removed
15	KM 69 (Tote Road)	532714 E 7922525 N	Remove Existing and Install New
16	KM 80 (Tote Road)	542048 E 7922301 N	Install New
17	KM 88 (Tote Road)	549280 E 7918649 N	Install New
18	KM 102 (Mine Site Complex)	561286 E 7913452 N	Remove Existing and Install New
19	KM 110 (Deposit 1)	563119 E 7914999 N	Existing to Remain

**Notes:**

<sup>1</sup> Coordinates shown in UTM (NAD83) Zone 17 (in meters)

<sup>2</sup> Coordinates are for new towers in locations where an existing tower is replaced and/or a new tower installed.

<sup>3</sup> Located on Crown Land

## New Tower Installations

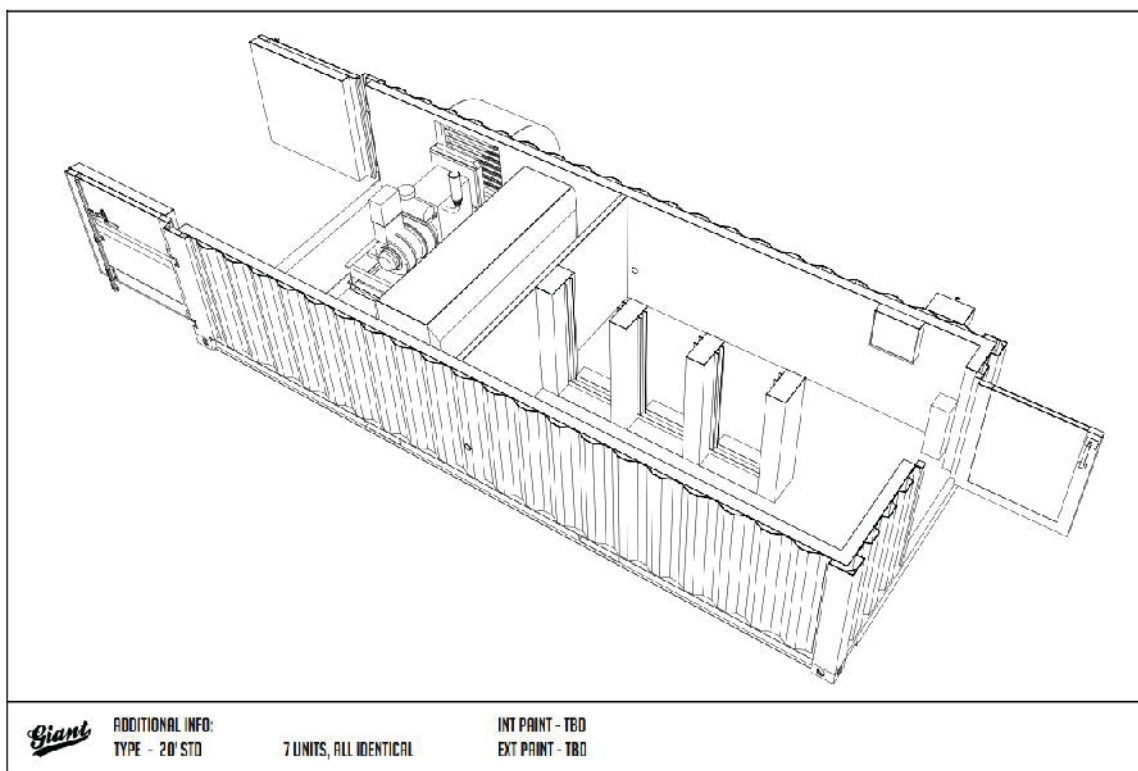
As shown in Table 1, ten (10) new towers will be required to upgrade the communications network. Site layouts for the ten (10) new communications towers and existing towers that will remain following the upgrade are provided in Attachment 2.

New tower installation techniques will not penetrate the ground for structural mounting. With the exception of the new tower at the Milne Port shiploader, the foundations of new communication towers will be comprised of Steel “Grillages” set on the graded area, and will use two (2) sea containers filled with aggregate as anchoring systems for the towers. The new tower at the Milne Port shiploader will be

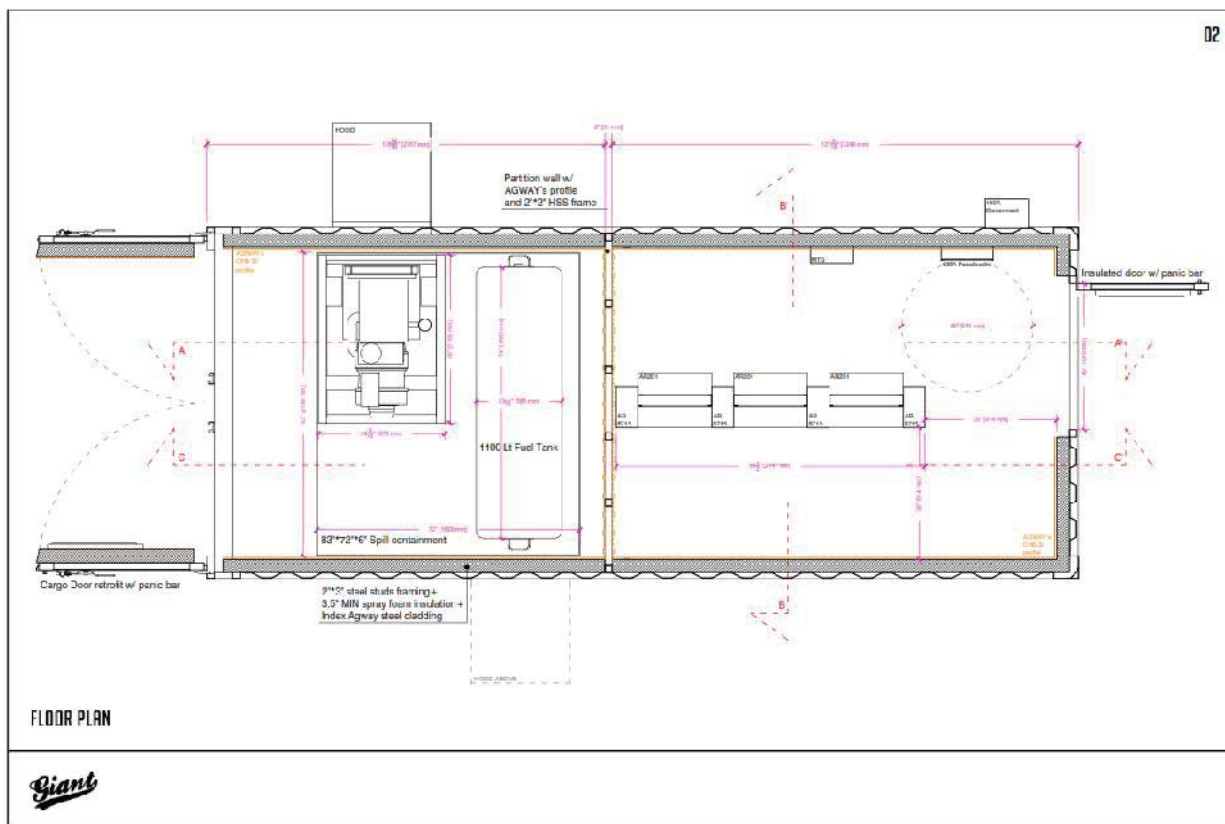
2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3  
Main: 416.364.8820 | Fax: 416.364.0193 | [www.baffinland.com](http://www.baffinland.com)

mounted on existing shiploader infrastructure. As shown in Attachment 2, three (3) of the new towers (Km 00, Km 03, Km 102) will be freestanding and will require no guy wire anchors. The remaining seven (7) new tower installations will require the use of guy wires anchored to pairs of 20' sea containers filled with aggregate, referred to as ballast sea containers. It is estimated that the entire communications network upgrade will require up to 5,000 cubic metres of aggregate, sourced from approved quarries Q1 and QMR2.

Moreover, similar to existing towers, new towers along the Tote Road, excluding towers at the Milne Port shiploader (Km 00) and near the Mine Site Complex (Km 102), will require remote power generation and therefore small quantity diesel fuel storage (see Figures 1 and 2). Towers at the Milne Port shiploader (Km 00) and near the Mine Site Complex (Km 102) will be powered by existing infrastructure located at Milne Port and the Mine Site, respectively. Communications sea containers, housing a diesel generator, diesel tank and communications equipment, as shown in Figure 1 and 2, will be located at each new tower and are designed to ensure that any internal fuel leaks from the tank or generator are fully contained. Fuel for towers along the Tote Road will be delivered by truck but by reducing the overall communication towers required, Baffinland will be able to reduce its diesel requirements for normal operations and the risk of fuel spills due to a reduction of re-fueling events. While limited in internal space, the communications sea containers can also be used as emergency shelters if required in the event of an emergency.



**Figure 1 – Communications Sea Container Layout**



**Figure 2: Communications Sea Container Floor Plan**

As shown in the figures included in Attachment 2, five (5) of the ten (10) new communication towers will require the expanding the Impact Area limits, as defined in the Commercial Lease, at specific locations along the Tote Road. The expansion of the limits will be required to accommodate land disturbance associated with the new tower infrastructure as well as the required 50 metre undisturbed land buffer, stipulated in the Commercial Lease. Refer to Attachment 1 for an Options Exercise Notice (OEN) Application to the QIA for this Lands reclassification.

New towers are planned to be installed following the posting of reclamation security for activities discussed in the 2018 Work Plan (Rev. 1), anticipated to occur in March 2018. Once the new infrastructure is installed and operational, the towers no longer required will be removed and subject to reclamation.

### Reclamation of Existing Towers

Tower sites that are not to be reused will be reclaimed as soon as possible, most likely in the summer of 2018, once the upgraded network has been fully implemented and tested. This will include the removal of existing equipment however, where possible, the equipment may be reused at the Project to enhance coverage. The remainder of the communication towers, sea containers, and associated equipment will be made available for use by local communities or subject to reclamation as defined by Baffinland's Interim Reclamation and Closure Plan (BAF-PH1-830-P16-0012).

## Financial Security

Security estimates for the new towers and associated infrastructure have been included in the 2018 Work Plan (Rev. 1). Table 2 below summarizes the additional land disturbance, Impact Area and infrastructure associated with the installation of the new towers. Equipment and infrastructure required to complete the communications network upgrade arrived at the Project during the 2017 sealift.

The reduction in required reclamation security associated with reclamation/decommissioning of select existing communications towers along the Tote Road will be reconciled in the 2019 Annual Security Review.

**Table 2: Summary of Land Disturbance, Changes to Impact Area Limits and New Infrastructure**

Site ID	UTM Coordinates <sup>1</sup>	Planned Action	Additional Land Disturbance <sup>2</sup> Required to Complete Work (m <sup>2</sup> )	Additional Impact Area <sup>3</sup> Required to Complete Work (m <sup>2</sup> )	Additional Infrastructure Required for Communications Network Upgrade
KM 00 (Shiploader)	503258 E 7976497 N	Install New	0	0	1x Tower
KM 03 (Tote Road)	503735 E 7974509 N	Remove Existing and Install New	0	0	1x Tower 3x 20' Seacans
KM 07 (Tote Road)	506405 E 7971540 N	Install New	1,300	0	1x Tower 9x 20' Seacans
KM 26 (Tote Road)	518584 E 7959689 N	Install New	4,100	2,200	1x Tower 9x 20' Seacans
KM 40 (Tote Road)	522380 E 7946930 N	Remove Existing and Install New	2,200	0	1x Tower 9x 20' Seacans
KM 49 (Tote Road)	525156 E 7938439 N	Remove Existing and Install New	4,900	5,300	1x Tower 9x 20' Seacans
KM 69 (Tote Road)	532714 E 7922525 N	Remove Existing and Install New	4,200	4,800	1x Tower 9x 20' Seacans
KM 80 (Tote Road)	542048 E 7922301 N	Install New	4,900	9,000	1x Tower 9x 20' Seacans
KM 88 (Tote Road)	549280 E 7918649 N	Install New	6,400	27,400	1x Tower 9x 20' Seacans
KM 102 (Mine Site Complex)	561286 E 7913452 N	Remove Existing and Install New	0	0	1x Tower 2x 20' Seacans 1x 4.5M Satellite Dish
<b>Total</b>			<b>28,000</b>	<b>48,700</b>	<b>10 Towers 1 4.5M Satellite Dish 68 20' Seacans</b>

**Notes:**

<sup>1</sup> Coordinates shown in UTM (NAD83) Zone 17 and is in meters

<sup>2</sup> Refers to the amount area to be disturbed by grading and re-contouring to complete work at each tower location.

<sup>3</sup> Impact Area as defined by Commercial Lease No. Q13C301, Section 2.5

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Main: 416.364.8820 | Fax: 416.364.0193 | [www.baffinland.com](http://www.baffinland.com)

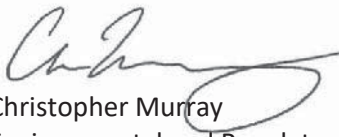
Following approval of this request and the implementation of the communications network upgrade, reclassified Lands along the Tote Road and additional disturbance will be surveyed as per Section 2.4 of the Commercial Lease. Any field changes made in completing the upgrade will be reconciled in the 2019 Annual Security Review.

### **Conclusion**

We trust that this information provides an understanding of what Baffinland is proposing as it relates to the planned upgrade of network infrastructure and meets the requirements to reclassify Lands at specific locations along the Tote Road under Section 3 of the Commercial Lease. A completed Options Exercise Notice (OEN) Application Form for this reclassification request consistent with the requirements of Section 3.4 of the Commercial Lease and Draft Lease Ops Guide "Option Exercise Notice Submission", is provided in Attachment 1.

Please do not hesitate to contact the undersigned, should you have any questions or comments.

Regards,



Christopher Murray  
Environmental and Regulatory Compliance Manager

### **Attachments:**

Attachment 1: OEN Application Form - Upgrade to Communications Network Infrastructure along Tote Road

Attachment 2: Figures

cc. Jason Ash, Jamie Van Gulck (ARKTIS Solutions)

Tim Sewell, Megan Lorde-Hoyle, William Bowden, Connor Devereaux, Andrew Vermeer (Baffinland)

## **Attachment 1**

### **OEN Application Form**

**Upgrade to Communications Network Infrastructure along Tote Road**

#	OEN APPLICATION FORM	
1	OEN Title	<b>Upgrade to Communications Network Infrastructure along Tote Road</b>
2	General geographic UTM coordinates of the areas subject to amendment	Refer to Attachment 2 for geographical coordinates of areas subject to amendment.
3	A description of the characteristics of the land including acknowledgement and explanation of any environmental sensitivities <sup>3</sup>	Vegetation at communication tower locations is discontinuous. Dry sites are very sparsely vegetated, whereas wet areas tend to have a more continuous cover of sedge, cottongrass, saxifrage, and moss. Landform is a broad, gently warped, old erosion surface composed of crystalline Precambrian rocks. Bedrock outcroppings are common, and Turbic Cryosols developed on hummocky, thin, discontinuous sandy moraine is the dominant soil. Organic and Static Cryosolic soils also occur. Most of the ecoregion is underlain by continuous permafrost with low ice content. No other unique environmental or archeological sensitivities are expected and environmental management will be done in accordance to site environmental management requirements. All disturbance will be 31m from any water body.
4	The specific nature of activities that have historically occurred on the proposed Lands <sup>4</sup>	Proposed communications tower infrastructure at Km 26, Km 49, Km 69, Km 80 and Km 88 will involve reclassifying Lands outside of the current Commercial Lease limits along the Tote Road as Impact Area. As shown in the figures included in Attachment 2, select proposed tower locations have already been partially disturbed due to the construction and operation of the Tote Road. No other specific activities are known to occur at this locations.
5	The specific nature of activities to be conducted on the proposed Lands <sup>5</sup>	Upgrade the Project's existing communications network by replacing, decommissioning and installing new communication tower infrastructure along the Tote Road.
6	Proposed duration of the activities	Work is planned to commence in March 2018 following the posting of reclamation security for activities discussed in the 2018 Work Plan (Rev. 1). Towers are expected to be in use for remainder of project life.

<sup>3</sup> This description shall at a minimum include a complete description of the following components:

- i. Wildlife
- ii. Vegetation
- iii. Permafrost
- iv. Water quality (includes Acid Rock Drainage and Metal Leaching)
- v. Air quality
- vi. Associated map(s), sketches and other information in sufficient detail and in a scale as to QIA to consider the amendment request, including clear presentation of existing geographical features and relevant project facilities. The map(s) will include nearby facilities and geographical features (e.g. water bodies, topography).
- vii. Photographic record of pre-operations in the OEN area.

<sup>4</sup> Indicate whether lands are disturbed or undisturbed - if disturbed, nature and duration of past disturbance (e.g. hectares of land disturbed, tonnes of material quarried, other types of activities etc.)

<sup>5</sup> Associated drawings and designs are to be included as annexes.

#	OEN APPLICATION FORM	
7	Associated changes to all Environmental Management and Monitoring Plans <sup>6</sup>	No change deemed warranted. Existing Environmental Management and Monitoring Plans can accommodate this areas in existing site management systems and procedures and no other changes are deemed required. Current list of Management Plans was provided in most recent Annual Report to QIA (March 31, 2017) and is still representative.
8	All related Annual Work Plan amendments, if any. <sup>7</sup>	Activities are identified in the 2018 Work Plan (Rev. 1).
9	Relevant information concerning financial security, including the Security Deposit.	Estimates for financial security are included in the 2018 Work Plan (Rev. 1) for the proposed activities associated with the communications network upgrade.
10	Indicate whether changes are required to existing approvals, licences, plans, permits or authorizations.	None identified to date.
11	The anticipated increase or decrease in Rent payment where the increase or decrease is shown compared against the initial Rent payment amount pre-OEN approval.	An additional 48,700 m <sup>2</sup> (4.87 hectares) of Lands along the Tote Road is anticipated to be reclassified as Impact Area, as defined in the Commercial Lease, resulting in a total of 7,635 hectares of Impact Area for the Project. This increase in Impact Area is anticipated to increase rent by \$974 which will be reconciled in 2019 rent payment.

<sup>6</sup> Relevant environmental management plans associated with the OEN. If there are no revisions required to management plans, a list of the most current environmental management plans will be provided.

<sup>7</sup> Indicate whether activity is outside of scope of relevant Annual Work Plan.



## **Attachment 2**

### **Figures**



**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- COMMERCIAL LEASE BOUNDARY
- ⊗ PROPOSED COMMUNICATIONS TOWER
- COMMUNICATIONS SEA CONTAINER



MARY RIVER PROJECT

**PROPOSED KM 00  
COMMUNICATIONS TOWER**

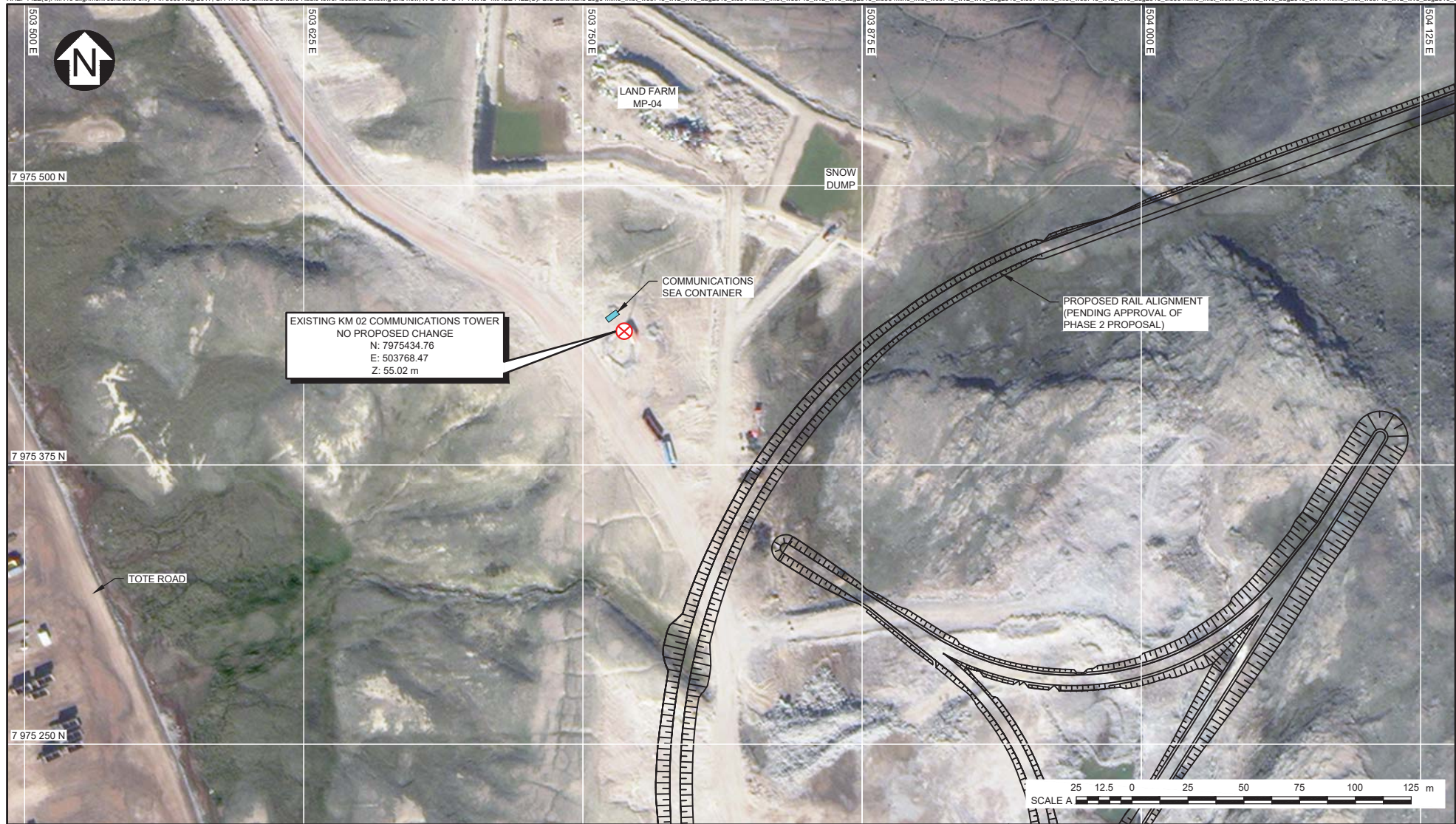
***Knight Piésold***  
CONSULTING

P/A NO. NB102-181/41	REF NO. NB18-00019
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**FIGURE 1**

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

- COORDINATE GRID IS UTM NAD 83, ZONE 17.
- PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED COMMUNICATIONS TOWER
- COMMUNICATIONS SEA CONTAINER

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



MARY RIVER PROJECT

**EXISTING KM 02  
COMMUNICATIONS TOWER**

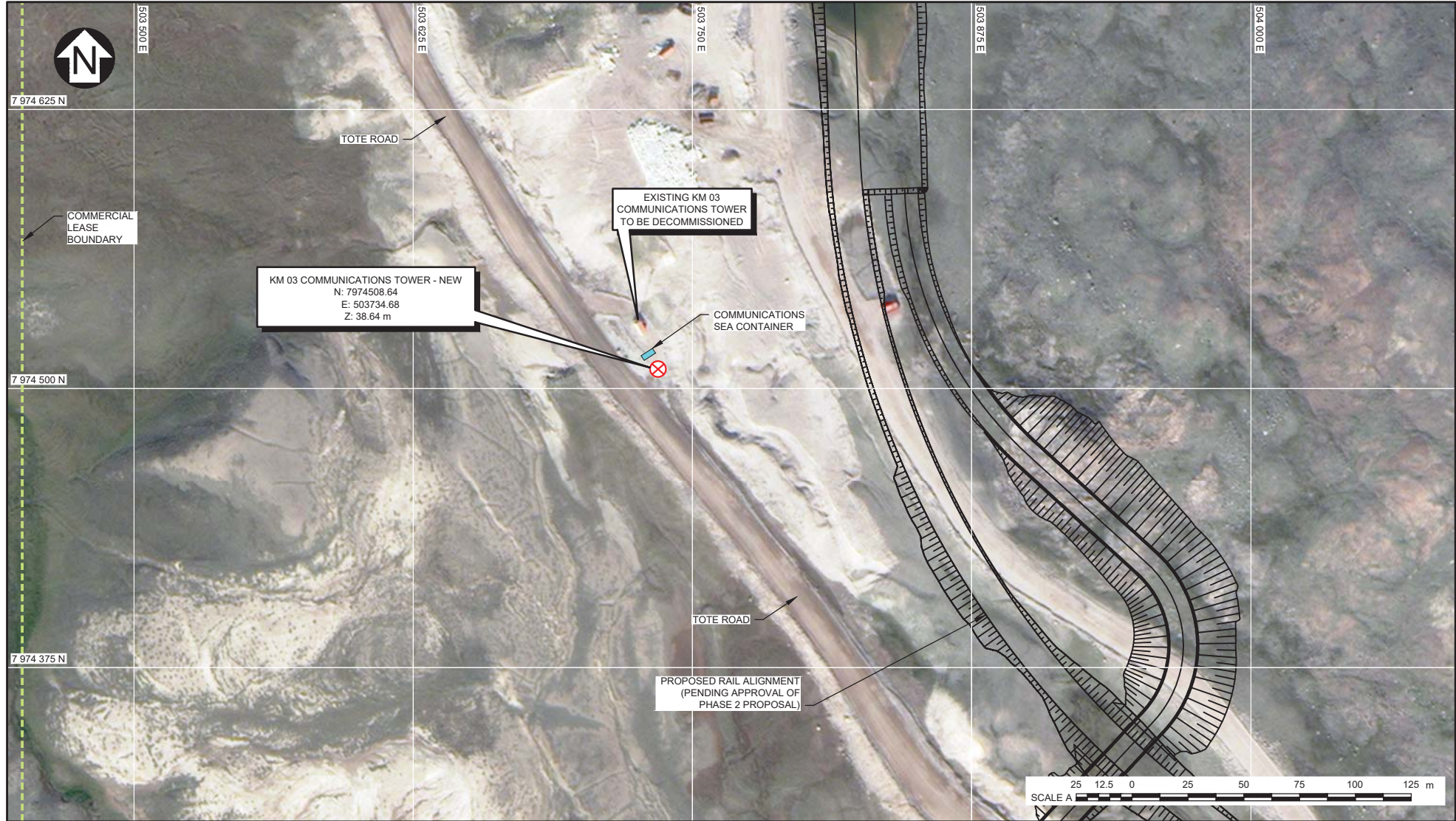
***Knight Piésold***  
CONSULTING

P/A NO. NB102-181/41	REF NO. NB18-00019
-------------------------	-----------------------

**FIGURE 2**

REV 0
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**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- COMMERCIAL LEASE BOUNDARY
- ⊗ PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- COMMUNICATIONS SEA CONTAINER

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



MARY RIVER PROJECT

**PROPOSED KM 03  
COMMUNICATIONS TOWER**

***Knight Piésold***  
CONSULTING

P/A NO.  
NB102-181/41

REF NO.  
NB17-00019

**FIGURE 3**

REV  
0





NOTES:

- COORDINATE GRID IS UTM NAD 83, ZONE 17.
- PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

LEGEND:

- EXISTING DISTURBED AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER



MARY RIVER PROJECT

PROPOSED KM 07  
COMMUNICATIONS TOWER

**Knight Piésold**  
CONSULTING

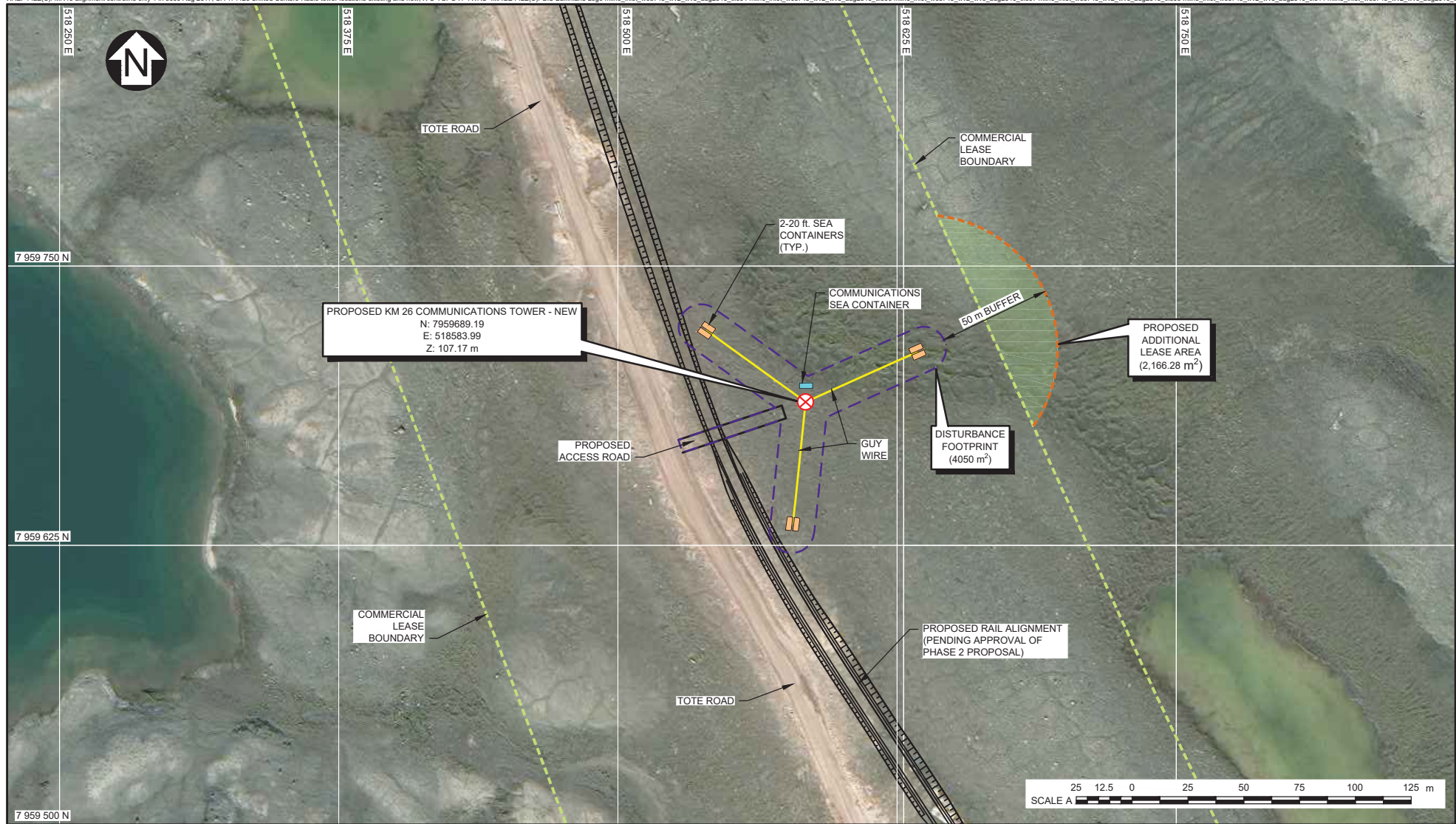
P/A NO. NB102-181/41	REF NO. NB18-00019
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FIGURE 4

REV  
0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED LEASE AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER



MARY RIVER PROJECT

**PROPOSED KM 26  
COMMUNICATIONS TOWER**

***Knight Piésold***  
CONSULTING

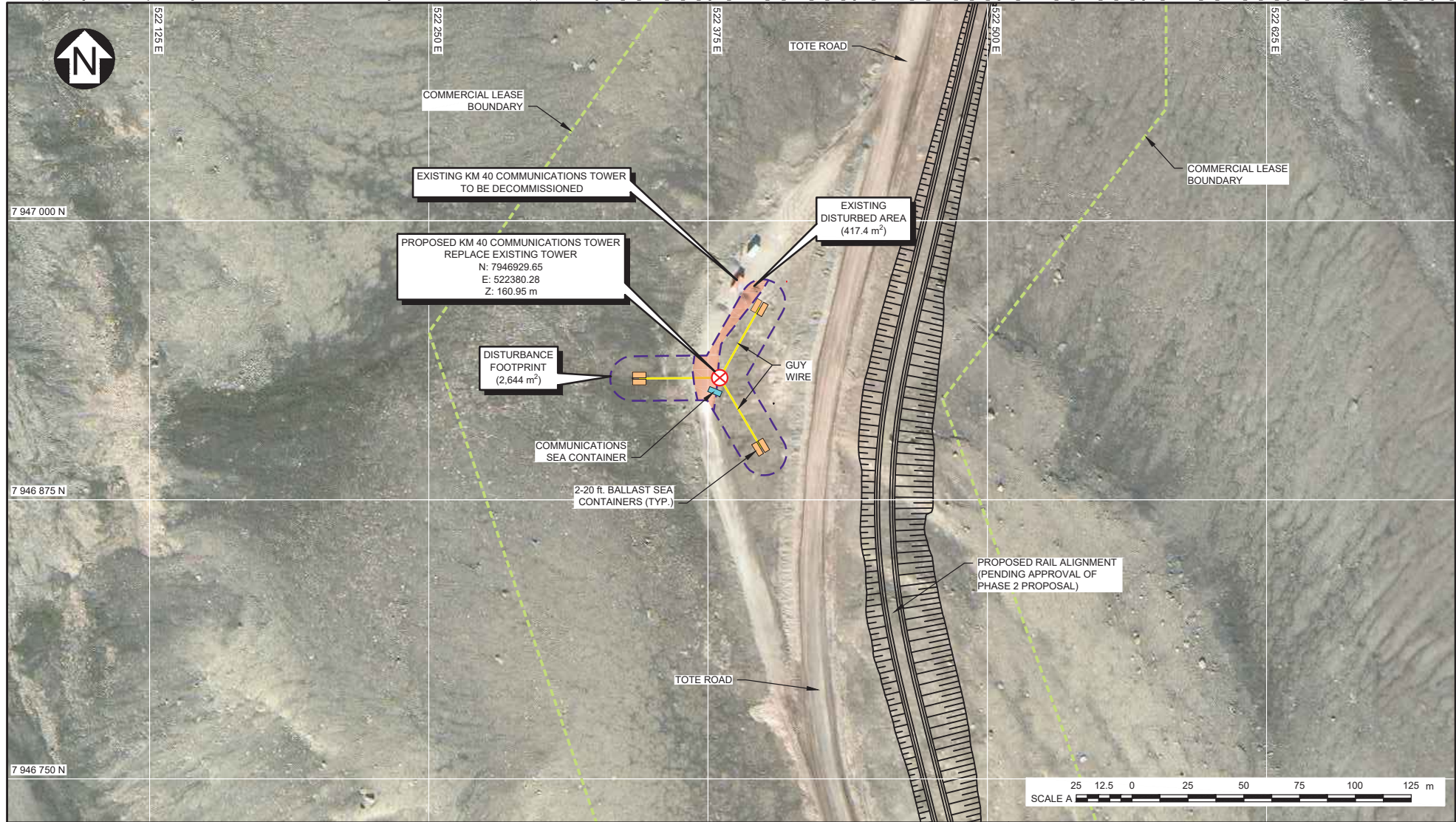
P/A NO. NB102-181/41 REF. NO. NB18-00019

**FIGURE 5**

REV  
0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

- COORDINATE GRID IS UTM NAD 83, ZONE 17.
- PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- EXISTING DISTURBED AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER



MARY RIVER PROJECT

**PROPOSED KM 40  
COMMUNICATIONS TOWER**

**Knight Piésold  
CONSULTING**

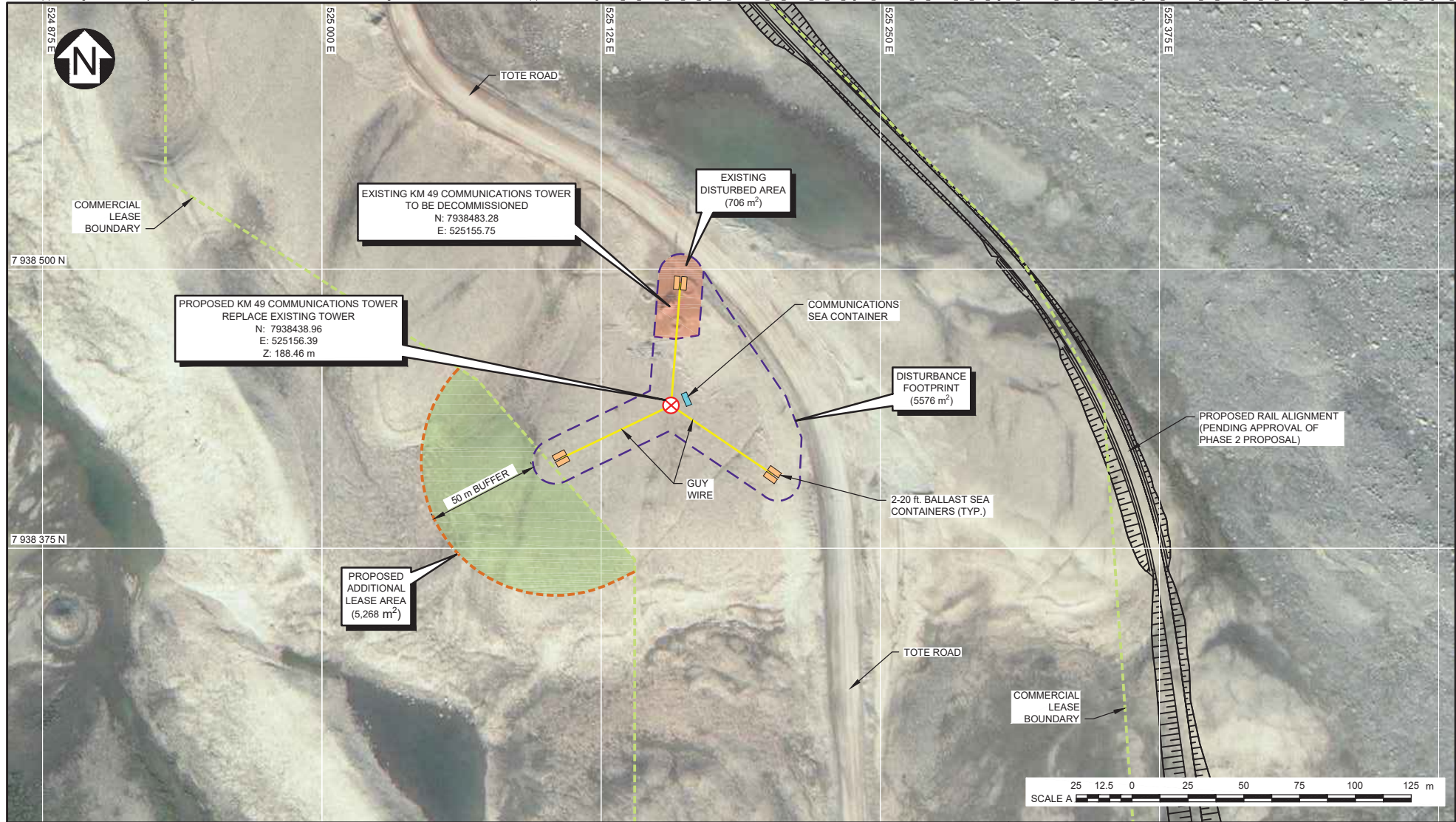
P/A NO. NB102-181/41 REF. NO. NB18-00019

**FIGURE 6**

REV  
0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED LEASE AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER
- EXISTING DISTURBED AREA



MARY RIVER PROJECT

**PROPOSED KM 49  
COMMUNICATIONS TOWER**

**Knight Piésold  
CONSULTING**

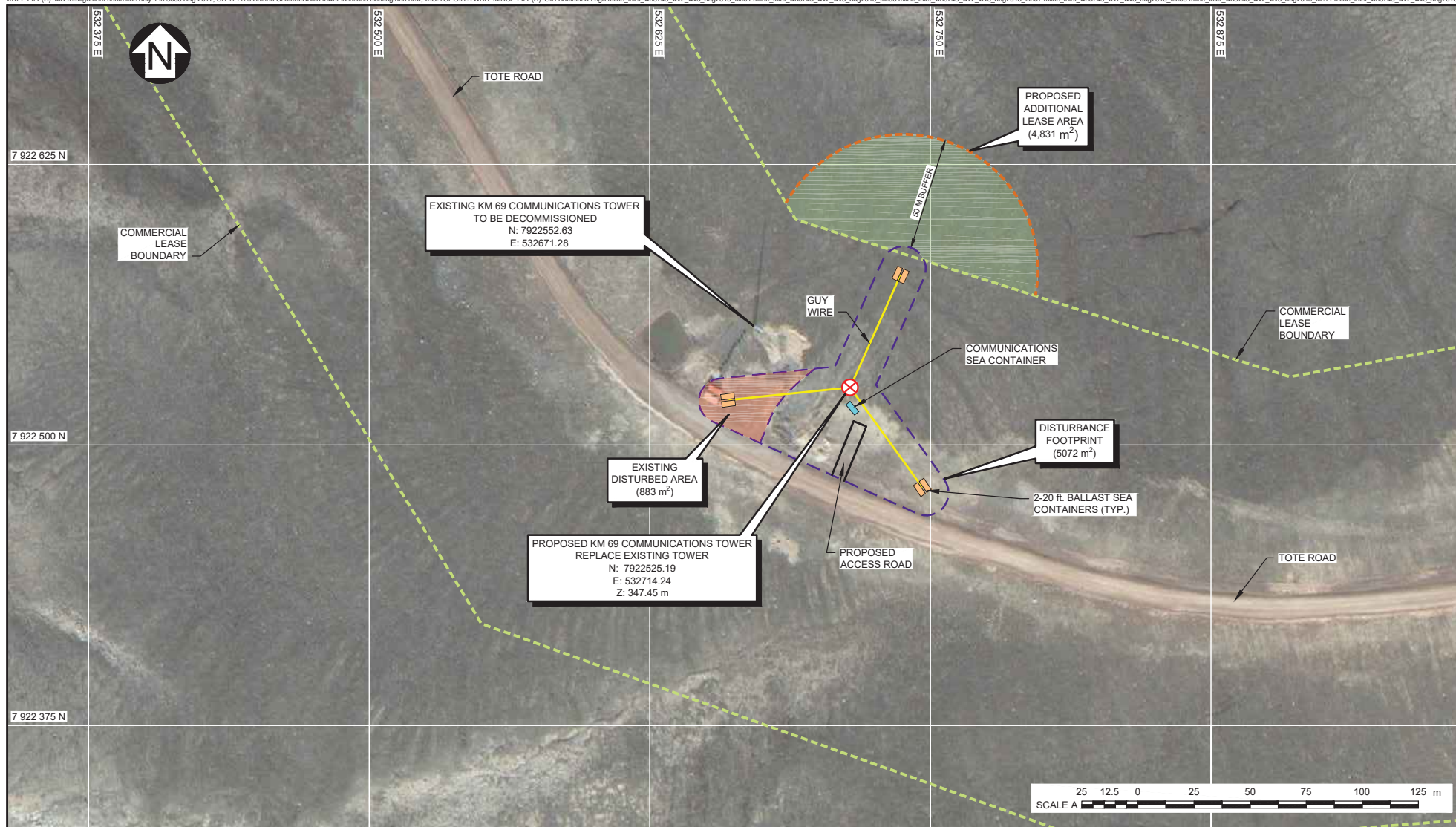
P/A NO. NB102-181/41 REF NO. NB18-00019

**FIGURE 7**

REV 0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

- COORDINATE GRID IS UTM NAD 83, ZONE 17.
- PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED LEASE AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER
- EXISTING DISTURBED AREA



MARY RIVER PROJECT

**PROPOSED KM 69  
COMMUNICATIONS TOWER**

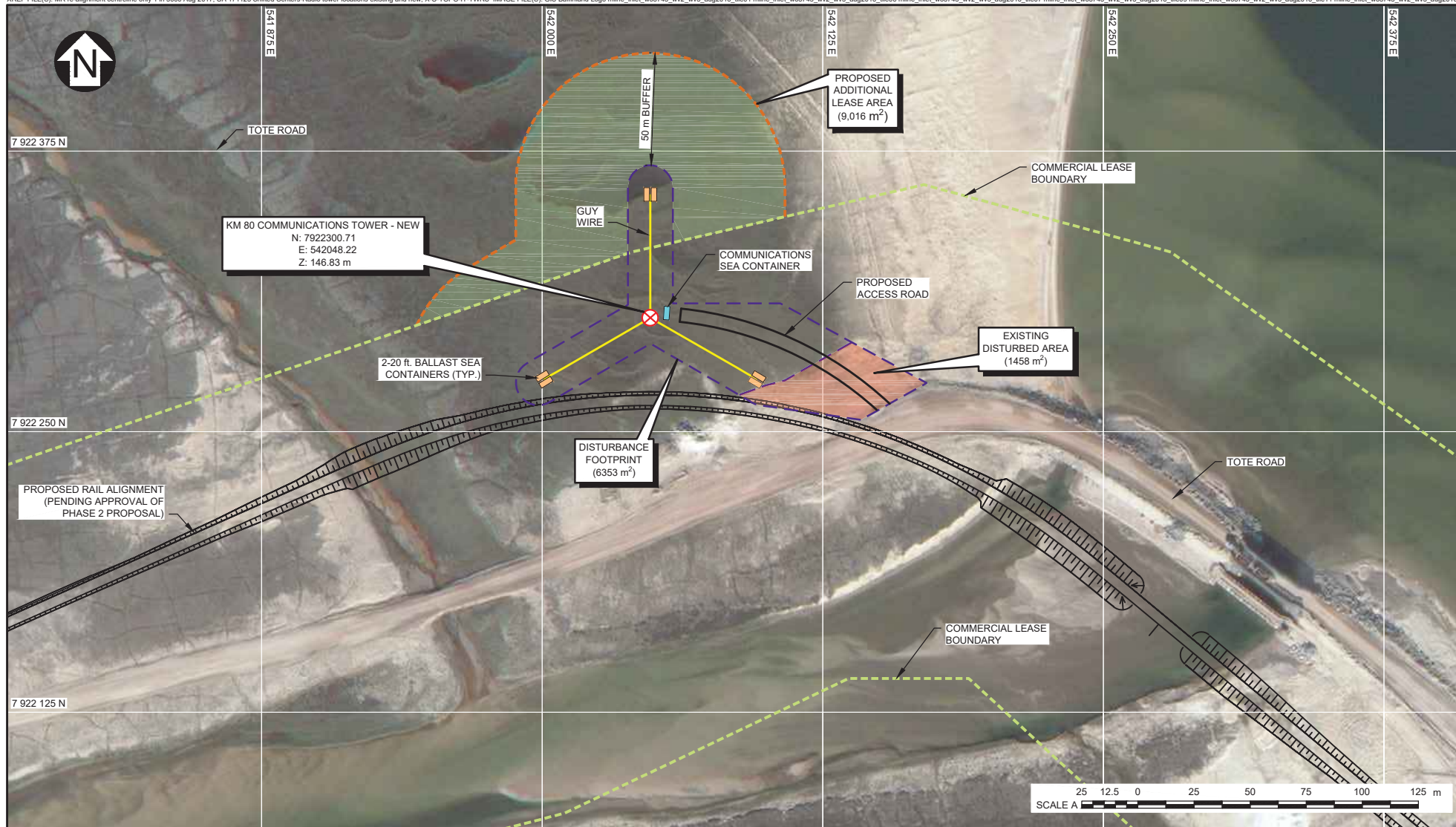
**Knight Piésold  
CONSULTING**

P/A NO. NB102-181/41 REF. NO. NB18-00019

**FIGURE 8**

REV  
0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED LEASE AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER
- EXISTING DISTURBED AREA

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



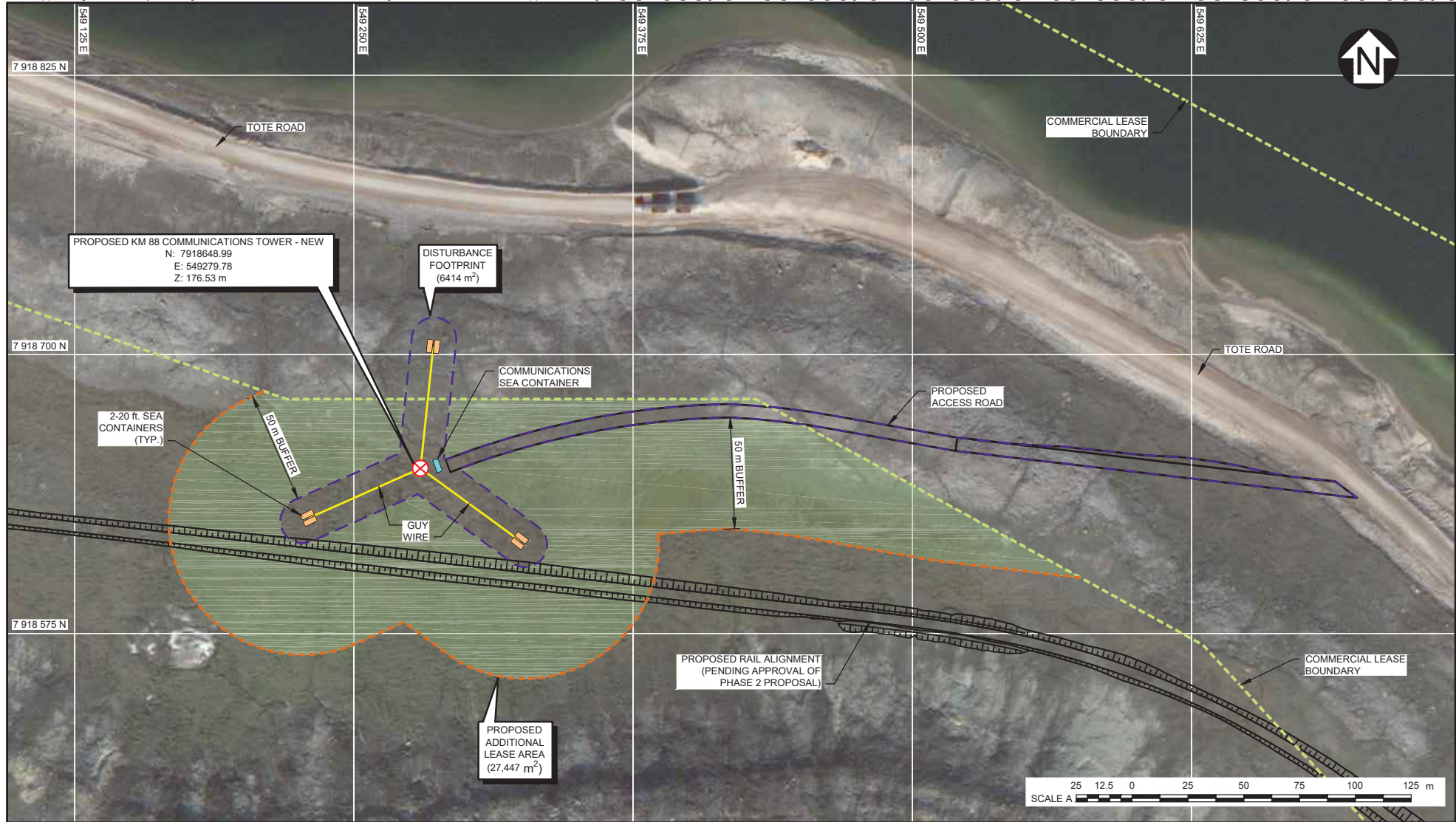
MARY RIVER PROJECT

**PROPOSED KM 80 COMMUNICATIONS TOWER**



P/A NO. NB102-181/41	REF NO. NB18-00019
<b>FIGURE 9</b>	
REV 0	





**NOTES:**

1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

- PROPOSED ADDITIONAL LEASE AREA
- COMMERCIAL LEASE BOUNDARY
- DISTURBANCE FOOTPRINT
- GUY WIRE
- PROPOSED COMMUNICATIONS TOWER (INCLUDES 2 BALLAST SEA CONTAINERS)
- BALLAST SEA CONTAINERS
- COMMUNICATIONS SEA CONTAINER

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



MARY RIVER PROJECT

**PROPOSED KM 88  
COMMUNICATIONS TOWER**



P/A NO. NB102-181/41	REF NO. NB18-00019
<b>FIGURE 10</b>	
REV 0	





**NOTES:**

- COORDINATE GRID IS UTM NAD 83, ZONE 17.
- PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

**LEGEND:**

-  PROPOSED COMMUNICATIONS TOWER  
(INCLUDES 2 BALLAST SEA CONTAINERS)



MARY RIVER PROJECT

**PROPOSED KM 102  
COMMUNICATIONS TOWER**

***Knight Piésold***  
CONSULTING

P/A NO.  
NB102-181/41

REF NO.  
NB18-00019

**FIGURE 11**

REV  
0

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED





**NOTES:**

- 1. COORDINATE GRID IS UTM NAD 83, ZONE 17.
- 2. PLAN BASED ON INFORMATION PROVIDED BY BAFFINLAND.

0	09JAN'18	ISSUED WITH TRANSMITTAL	RAC	MMD	AV
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED



MARY RIVER PROJECT

**EXISTING KM 110 COMMUNICATIONS TOWER**



P/A NO. NB102-181/41	REF NO. NB18-00019
<b>FIGURE 12</b>	
REV 0	