Attachment 2 2015 Work Plan Addendum



2015 WORK PLAN ADDENDUM

December 12, 2014





December 2014



Preamble

On October 31, 2014, Baffinland Iron Mines Corporation (Baffinland) submitted the 2015 Work Plan for the Mary River Project. The following document presents the 2015 Work Plan Addendum ('Addendum') which is an update to the 2015 Work Plan submitted on October 31, 2014. The purpose of this Addendum is to include additional work scope for 2015 that was not captured in the October 31, 2014 submission. The additional work scope items presented in this document are required to facilitate the ongoing Project as approved under amended NIRB Project Certificate No. 005, current Type A Water Licence 2AM-MRY1325, Type B Water Licence 8BC-MRY1416, and the Type A Water Licence amendment application currently under review by the NWB.

Overall Structure of the Addendum to 2015 Work Plan (Addendum)

As this document is an Addendum to the 2015 Work Plan, its structure follows that of the original 2015 Work Plan submitted on October 31, 2014.

The approach has been to update 2015 Work Plan with red typeface to indicate where new information or discussion is introduced. Where the Addendum introduces a change to the 2015 Work Plan, the corresponding section, table or figure title is indicated as "Change" in the Addendum and corresponding text, figures or tables are included to address the changes. Where no change to the original content of the 2015 Work Plan occurs, the corresponding section, table or figure title is indicated as "No Change" in the Addendum.



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(H349000-1000-07-126-0020) (Change)



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1. INTRODUCTION (CHANGE)

The following document presents the 2015 Work Plan Addendum ('Addendum') which is an update to the 2015 Work Plan submitted on October 31, 2014. The purpose of this Addendum is to include the additional scope of work for 2015 that was not captured in the October 31, 2014 submission.

The annual work plan is submitted on October 31 of the preceding year under Section 6.1 of Commercial Lease No. Q13C301 agreed between Baffinland Iron Mines Corporation and the Qikiqtani Inuit Association and under Part J, Item 3 of Type 'A' Water Licence 2AM-MRY1325 for the purposes of an Annual Security Review. Based on project requirements that have been identified and developed subsequent to the original 2015 Work Plan submission on October 31, 2014 and due to the requirement of a Work Plan submission four (4) months prior to anticipated commencement of activities, additional work activities have been identified as being required in 2015 that are intended to be conducted by Baffinland to maintain operational performance. These additional work activities are therefore captured in this 2015 Work Plan Addendum in order fulfill requirements outlined in Commercial Lease No. Q13C301 and Type 'A' Water Licence 2AM-MRY1325 and to facilitate communication of these changes with relevant stakeholders. In the event the Project does not advance, the work items as described and constructed in this addendum to the 2015 Work Plan will be subject to reclamation, as per relevant regulatory and permit obligations.

In an effort to align this document with the requirements defined in the Commercial Lease, wording highlighted by italicized blue throughout this document reflects the wording used in the Commercial Lease.

2015 WORK PLAN

2.1 2015 SCOPE OF WORK (NO CHANGE)

The Tenant shall provide:

"A description of the Operations and Work that the Tenant expects to perform in the next Year, and an identification of the Lands, within existing or proposed Land Use Areas that are to be specifically identified within the Property, where such Operations and Work shall occur"

This 2015 Work Plan provides for:

- The continued development and construction of infrastructure required at Milne Port and the Mary River Mine Site (Mine Site) for the Mary River Project.
- 2. Development and operation of the mine, ore crushing and land transportation, stockpiling and marine shipment of ore.
- 3. At Milne Port, vessels carrying fuel, equipment and supplies for both use at the Mine Site and Milne Port will arrive during open water (approximately between mid July and mid October 2015). Material, fuel and supplies required for construction and operational activities will be transported to the Mine Site year round via the Tote Road.
- 4. Ongoing environmental baseline data collection and geotechnical drilling will continue to support the construction and operation of the Project. These activities will resume, as

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required, at the Milne Port site, along the Tote Road, at the Mine Site, at numerous quarry sites and at other Project development areas.

- 5. Continued environmental monitoring in accordance with the approved Project Certificate, licences, authorizations, management plans and environmental effects monitoring plans.
- 6. Continued archaeological surveys at project component areas as required.
- 7. Operation of the aerodrome at the Mine Site, which will support year round passenger and freight service by aircraft. Adjustments to the existing aerodrome flight path to improve aviation safety at Mary River Mine Site. This will involve the minor leveling out of two knolls within the planned flight path.
- 8. Continued fuel transfer from Milne tank farm to the Mine Site tank farm along the Tote Road to support ongoing construction and operations activities.

There will be continued progressive reclamation of areas of current and past use in association with exploration and construction phases of the Project. These will include:

- Ongoing long term management of calcium chloride salt storage and use at the Project Site. This
 includes waste segregation of salt bags and proper disposal of collected materials in accordance
 with Baffinland's Waste Management Plan (BAF-PH1-830-P16-0028) as well as identifying and
 containing compromised salt packages to prevent materials being distributed around the site. The
 salt is stored at both the Mary River Mine Site and Milne Port Site for use in exploration drilling,
 as well as for dust suppression on Project roads and camp pads.
- Ongoing testing, managing, and disposal of the historical inventory of incinerator bottom ash at
 the Mary River Mine Site and Milne Port. Ash that is tested and determined to be non-hazardous
 will be disposed of in the existing Mine site Landfill, and ash that is identified as hazardous will be
 sent off site for disposal in a licenced facility in Southern Canada. Ongoing ash generation,
 testing, and disposal will be conducted in accordance with Baffinland's Waste Management Plan
 (BAF-PH1-830-P16-0028).
- Completion of the decommissioning of the historical bladder farm at Milne Port. Work includes management of hydrocarbon impacted soils within the existing landfarm facility.
- Continuation of the decommissioning activities the existing bladder farm at the Mary River Mine Site. Work includes the treatment of oily water contact water and the management/storage of hydrocarbon impacted soils prior to placement in a landfarm facility. Consideration will be given to designing and constructing a new landfarm at the Mary River Mine Site during 2015, located adjacent to the existing landfill area.
- Continue the development and implementation of a long term multi-year plan to address localized
 areas of permafrost degradation associated with current borrow areas including Km97, and taking
 into consideration the longer term designs for the Tote Road upgrades and quarry development.
- Demobilization of equipment and supplies not required for near term activities, as well as the current inventory of hazardous waste and other materials by means of sealift from Milne Port Site.
- Continued development of the Mine Site landfill and deposition of non-hazardous wastes in accordance with the Landfill Maintenance and Operations Manual. Consideration will be given to

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designing and constructing a new landfill at the Milne Port Site if it is deemed necessary during 2015. Note that this activity would require application and approval from the NWB and QIA.

- Discharge and treatment of residual treated sewage effluent stored in PWSPs at the Mary River Exploration Camp and Milne Port Site as required.
- Consideration will be given to the construction of an additional PWSP to be located near the Mary River Mine Site sewage treatment plant. If a PWSP is deemed necessary during 2015, it will be constructed and commissioned.
- Ongoing removal from the site, or safe disposal on-site of infrastructure, equipment and supplies
 no longer required for ongoing construction and operations. The items are defined by the Mary
 River Project Interim Closure and Reclamation Plan, and include infrastructure and site materials,
 fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and
 equipment prior to the expiry of applicable permits. Where required, internal roads will be regraded to restore natural drainage and to reduce erosion.
- Unless otherwise identified within the approved Interim Closure and Reclamation Plan, where
 roads are no longer in use, Baffinland will remove culverts and open/restore the natural drainage
 channel. In carrying out this activity, measures will be implemented to minimize erosion and
 sedimentation.
- 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. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.

The Work Plan is presented within the context of the applicable regulatory authorizations and schedule. Baffinland holds, or will soon hold, all the permits and authorizations required to carry out the 2015 Work Plan. The main regulatory instruments that allow for the 2015 Work Plan activities include:

- Amended Project Certificate No. 005 (May 2014)
 - All works and activities proposed have been screened by the NIRB and have been considered in the amended Project Certificate issued by the NIRB.
- Type 'A' Water Licence (2AM-MRY1325) Expires June 10, 2025
 - The works and activities planned for 2015 are within the scope of the licence or the Type B Licences below, except where noted otherwise.
- Type 'B' Water Licence (8BC-MRY1416) Expires August 5, 2016
 - For additional construction works and activities at Milne Port as a result of approved Early Revenue Phase.
- Exploration Type 'B' Water Licence (2BE-MRY1421 which supersedes: 2BB-MRY1114) Expires April 16, 2021.

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 The renewed Type 'B' Water Licence authorizes Baffinland to undertake mineral exploration, geotechnical drilling programs, ongoing operation, maintenance and upgrades to existing pioneer camps at Steensby Inlet and Mid Rail camp.

Quarry Permits

- Schedule 'B' Quarry Concession Agreement under IOL Commercial Lease New Lease, Q13C301.
- It is anticipated that quarrying of rock and gravel from permitted quarry locations (as shown on Schedule "A1") of the IOL Commercial Lease will continue. In addition, Baffinland may be applying for additional access and quarry permits to extract rock and gravel material adjacent and near the existing Milne Inlet Tote Road by means of an Amendment to the existing Schedule 'B' to the Lease.
- Currently approved quarries and borrows are as follows, note that all quarries/borrows are on QIA lease with the exception of the borrow P1 which is located on Crown Land and is under the AANDC Land Lease:
 - 1. Quarry Q7, Tote Road Km 7
 - 2. Quarry Q11, Tote Road Km 11
 - 3. Borrow P1, Tote Road Km 63
 - 4. Quarry Q19, Tote Road Km 19
 - 5. Borrow KM104, Tote Road Km 104
- New borrow sources are needed at the following locations:
 - 1. Borrow Km 2, Tote Road Km 2, (Refer to Appendix C)
 - 2. Borrow Km 97, Tote Road Km 97 (Refer to Appendix D)
- The construction of access roads from the Tote road will be necessary to access some of the quarry and borrow locations. Where it is necessary, culvert crossings will be installed along the access roads. The occurrence of fish habitat streams are not anticipated along these access roads
- DFO Authorization for the Ore Dock 14-HCAA-00525 No. 1 expires December 31, 2020
- DFO Authorization 06-HCAA-CA7-00084 for water crossings along the Tote Road
- AANDC Land Use Permits and Quarry Permit to access existing and possibly new borrow and rock quarries adjacent and near the Tote Road (currently covered under the Class A Crown Land Use Permit, 47H16-1-2 and Quarry Tote Road Land Use Permit (LUP) N2014Q0016 and Quarry Permit 2014QP0023 – expires June 30, 2016).
- Additional AANDC Land Use permits include:
 - Ore Dock Land Use Permit (LUP) N2014X0012 expires June 30, 2016
 - Steensby and Milne Inlet Land Use Permit (LUP) N2014C0013 expires June 30, 2016

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Bruce Head Land Use Permit (LUP) N2014C0013 – expires June 30, 2016

Appendix E includes Land Lease drawing layouts: H349000-1000-00-015-0001, H349000-1000-00-015-0002, H349000-1000-00-015-0003, H349000-1000-00-015-0004, H349000-1000-00-015-0006, H349000-1000-00-015-0007, H349000-1000-00-015-0008 and H349000-1000-00-015-0009.

2.2 INFRASTRUCTURE AND CONSTRUCTION WORKS (CHANGE)

The Tenant shall provide:

"A description of the topographical features and any natural or manmade features, structures or works that may be affected by the Tenant's Operations and Work within existing or proposed Land Use Areas that are to be specifically identified within the Property;"

Construction activities forecast for 2015 under the amended Project Certificate No. 005 include:

Milne Inlet

During the sealift, most of the activities at Milne Port will focus on unloading the barges and positioning received equipment and material in designated laydown areas. In addition, the following construction activities will continue:

- Continue to install and commission communication and IT infrastructure.
- Continue to construct remaining earth/rock fill for laydown areas, the ore dock, ore stockpile pad, runoff sedimentation collection ponds, and local site roads at Milne Port.
- Completion of the construction of the ore dock to support the ship loader and related ship loader facilities.
- Finalize assembly and installation of Shiploader 1 and Shiploader 2.
- Milne Ore Stacking, Reclaim and Ship Loader mechanical and electrical completion, commissioning and start-up.
- Install mooring buoys or dolphins as part of the ore dock construction.
- Install and commission trailers (offices, lunchrooms and washcars) including electrical and plumbing.
- Install and commission electrical power systems to the shiploader, trailers, causeway and dock including wharf lighting.
- Complete installation of buildings including maintenance building, workshop office and welding shop.
- Complete installation of power generation systems.
- Install power supply and distribution for buildings including maintenance shops and warehouses.
- If required, additional dredging to maintain the required vessel draft depths. Suitable dredged material will be used as backfill within the ore dock structure.

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- Continued development of the Quarry Q1.
- Earthworks including minor pads for maintenance shop, welding shop, truck wash building, as
 well as additional laydown area required as storage for 2015 Sealift equipment, supplies and
 materials.
- Construct concrete slabs and foundations for the maintenance shop and welding shop extension.
 Construct exterior concrete foundations and sump for truck wash building.
- Commence construction of the maintenance shop, welding shop extension and truck wash facility.
- Expand the existing accommodation complex with additional 120 beds, including mine dry facilities, recreational and dining facilities.
- Temporary contractor infrastructure determined and required by construction contractors.
- Upgrade the existing sewage treatment plant.
- Modifications to increase capacity of existing potable water treatment plant.
- Install an additional hazardous waste containment cell (Details provided Appendix F.4).

Tote Road

All equipment, material, fuel, and supplies required for construction and operation activities at the Mary River Mine Site will be transported from Milne Port to the Mine Site via the Tote Road. The upgrade of the road will continue throughout 2015. During 2015 the activities associated with the upgrade to the Tote Road will include:

- Continued Improvements including realignment of the road and offsetting of some culvert crossing locations.
- Reduce maximum slopes.
- Increase turn radii.
- Increase road embankment width.
- Increase culvert capacities by means of new installations and/or culvert extensions where required.
- Crush material as required, haul, place and compact new rock fill as required.
- Installation and maintenance of erosion control measures.
- Construct ditches with rip rap as required.
- Continue development of Borrow P1. Commence development of Km 2 and Km 97 borrows (located near Km 2 and 97 of the Tote Road). Continue the development of other approved quarry and borrow sources to provide access to aggregate for upgrades and sand for winter sanding, minor fill, and maintenance and other approved construction projects. If required, commence the development of Quarries Q7, Q11, and Q19.

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- Drill, blast, excavate, and cut and fill activities as required to reduce steep grades and improve curves where necessary and to improve sight distance and visibility along the road.
- Removal of the four (4) sea-can bridges (bin walls will remain in place).
- Install signs and reflective markers as required.
- Bridge maintenance as required.
- Installation of Ice road crossings adjacent to the existing bridges if needed to remove sea can bridges and/or to complete maintenance on new bridges.

Mary River Mine Site

Construction activities at the Mary River Mine Site will consist of:

- Complete construction of buildings and associated equipment including maintenance shops, site services building, warehouse, waste management buildings, truck wash facilities and truck weigh scale.
- Complete internal and external fit out (electrical and mechanical) of maintenance building welding shop and warehouse.
- Install offices, lunchrooms and washcars including maintenance office/washcar and pit office/washcar.
- Complete installation of the power generating equipment and install additional generators as required.
- Complete installation of power distribution to E-houses and buildings.
- Install E-house at existing Weatherhaven camp.
- Construct hazardous waste and fuel containment berms.
- Construct roads and lay down pads.
- Construct, install and grade waste rock haul road, waste rock pad, drainage ditches and settling pond.
- Construct crusher pad settling pond.
- Finish and improve grade of the airstrip.
- Extend landfill to increase capacity based on the approved design area.
- Install approved two-50,000 L and one-75,000 L Jet-A fuel tanks at the aerodrome apron to service aircraft charters.
- Continued development of QMR2 quarry if required.
- Improvements to the aerodrome flight path to increase aviation safety; including the leveling of knolls that are within the airstrip approach and the construction of temporary access roads to those areas for the purpose of completing this work (refer to Appendix F for details).

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- Earthworks including extensions to existing accommodation pad, power generation pad and crusher pad. The expansion of the crusher pad is required to provide extra area for blending operations as well as to accommodate the second crusher train.
- Earthworks to construct pads for ore haul workshop, truck wash facility, construction office and light vehicle parking lot.
- Construct concrete slabs and foundations for the ore haul workshop and welding shop extension.
 Construct concrete foundations and sump for truck wash building.
- Commence construction of the ore haul workshop, welding shop extension and ore haul truck wash building.
- Construction of a detour road around the existing facilities connecting the crusher pad to the Tote road.
- Expand the existing accommodation complex with additional 172 beds, including mine dry facilities, recreational and dining facilities.
- Install additional sewage treatment capacity.
- Temporary contractor infrastructure determined and required by construction contractors.
- Modifications to increase capacity of existing potable water treatment plant.

2.3 <u>INFRASTRUCTURE LAYOUT AT END OF 2015 (CHANGE)</u>

The Tenant shall provide:

"A detailed description of planned construction and infrastructure changes, additions or removals within the boundaries of the Impact Areas and the Exploration Areas, either permanent or temporary;"

Updated 2015 Site layouts for Milne Port and Mary River Mine Site can be found in Appendix A of this document.

2.4 MINING, QUARRYING AND EXPLORATION ACTIVITIES (CHANGE)

The Tenant shall provide:

"A description of any and all mining and exploration activities planned for the year, including:

i. Exploration activity and drilling plan,

In 2014 Baffinland received the approval for a renewal to the exploration Type 'B' Water Licence (2BE-MRY1421). All activities listed under this renewal have been permitted in the past and are common to exploration properties throughout Nunavut.

The Type 'B' Licence (2BE-MRY1421) allows for Baffinland to continue/undertake the activities on its mineral leases in the Qikiqtani Region of Nunavut. The scope of Type "B" Water Licence No. 2BE-MRY1421 "allows for the use of Waters and the deposit of Waste for a Mining undertaking, classified as per Schedule 1 of the Regulations at the Mary River Exploration Project" and includes the following activities:

Land-based and on-ice mineral drilling.

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- Mapping.
- · Sampling.
- Drill core storage.
- Disposal of drilling mud.
- Geophysical and geochemical surveys.
- Mechanical trenching and stripping of surficial overburden.
- Activities to support of scientific and engineering studies to advance the Mary River Project including geotechnical investigation and geotechnical drilling.
- Progressive reclamation programs of drilling sites.
- Fuel storage.
- Ongoing operation, maintenance and upgrades to existing pioneer camps at Steensby Inlet and Mid-Rail location:
 - Steensby Inlet Camp: Latitude 70 17' 40" Longitude 78 29 15"
 - Mid-Rail Camp: Latitude 70 58' 20" Longitude 78 22' 15"
- Equipment, personnel and supply transport.

These tasks will either be supported from the facilities and infrastructure constructed at the Mary River Mine Site, Milne Port, and eventually from the future Steensby Port facilities (once constructed), or the existing Mid-Rail Camp, Steensby Port Camp and potential satellite exploration camps on Baffinland's mineral leases. As a result of the condition and age of the Mid-Rail camp, Baffinland may decide to reclaim this Camp in 2015. If it is decided to reclaim the Mid-Rail Camp in 2015, it will be completed in accordance with Baffinland's Exploration Closure and Reclamation Plan BAF-PH1-830-P16-0038.

ii. An estimate of the amount and type of ore and waste to be mined in each month,

An estimate of the breakdown of ore vs. waste mined from Deposit No. 1 by month during 2015 is provided in Table 2-1.

Table 2-1: Mine Forecast 2015 (No Change)

Month	Ore Mined (wmt)	Waste Mined (wmt)	Total Mined (wmt)
	` '	` ′	` ,
January	300,000	250,000	550,000
February	300,000	250,000	550,000
March	300,000	250,000	550,000
April	300,000	250,000	550,000
May	300,000	250,000	550,000
June	300,000	250,000	550,000
July	300,000	250,000	550,000
August	300,000	250,000	550,000
September	300,000	250,000	550,000
October	300,000	250,000	550,000
November	300,000	250,000	550,000
December	300,000	250,000	550,000
Total	3,600,000	3,000,000	6,600,000

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iii. An estimate of the amount and type of ore to be shipped each month,

Ore shipping during 2015 will occur during the open water season from July to October. The expected total shipping quantities for 2015 are shown in Table 2-2 below.

Table 2-2: Ore Shipping Forecast 2015 (No Change)

Month	Lump Ore Shipped (wmt)	Fines Shipped (wmt)	Total Shipped (wmt)
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	0	0	0
June	0	0	0
July	120,000	40,000	160,000
August	930,000	310,000	1,240,000
September	930,000	310,000	1,240,000
October	270,000	90,000	360,000
November	0	0	0
December	0	0	0
Total	2,250,000	750,000	3,000,000

iv. Expected quarterly quantities to be quarried of each Specified Substance including sand, gravel and construction stone, where possible, estimated by individual quarry site or borrow location;"

A summary of the expected quantities of quarried and borrow materials to be extracted during 2015 are provided in Table 2-3 below. The expected quarterly quantities of each specified substance per quarry site and borrow location is provided in Table 2-4 below.

Table 2-3: 2015 Quarry and Borrow Pit Quantities (Change)

Quarry and Borrow Source	Estimated Annual Volume 2015 (m³)	Estimated Annual Surface Area 2015 (m²)
Q1	300,000	138,000
Q7	0	0
Q11	0	0
P1 & other approved borrow	275,000	55,000
sources	273,000	33,000
Q19	0	0
QMR2	400,000	95,000
D1Q1	-	0
D1Q2	-	0
TOTAL	975,00	

Note: The quantities from each source are approximate values and may vary based on minor changes to the construction schedule and scope, however, the aggregate volume to be extracted is expected to remain constant.

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Table 2-4: 2015 Quarry and Borrow Pit Quarterly Quantities of Specified Substances (Change)

		20	15		Total Volume
Material	Quarter 1 (m ³)	Quarter 2 (m³)	Quarter 3 (m ³)	Quarter 4 (m ³)	(m³)
Organic Soil/Sand		10,000 from approved borrow sources	10,000 from approved borrow sources		20,000
Gravel	40,000 from P1 & other approved borrow sources	90,000 at P1 & other approved borrow sources	90,000 at P1 & other approved borrow sources	35,000 at P1 & other approved borrow sources	255,000
Construction Stone	40,000 at QMR2	120,000 at Q1 125,000 at QMR2	120,000 at Q1 125,000 at QMR2	60,000 at Q1 110,000 at QMR2	700,000
TOTAL					975,000

2.5 <u>SOLID WASTE DISPOSAL (NO CHANGE)</u>

The Tenant shall provide:

"Expected annual quantities of Solid Waste to be deposited in approved Waste Storage Areas;"

The expected annual quantity of solid wastes to be deposited during 2014 can be found in the Waste Management Plan (BAF-PH1-830-P16-0028) for the Project and updated estimated quantities for 2015 are provided in the table below.

Table 2-5: Estimated Domestic Solid Non-Hazardous Waste Generation (No Change)

Waste	Waste Description	Disposal Method	Est. Total Annual Production (tonnes)				
	2015 Work Plan						
Organic	Kitchens	Incinerator	318				
Paper	Packaging/Offices	Incinerator/On-site landfill	91				
Plastic	Offices/Camps	Incinerator ² /On-site landfill	65				
Cardboard	Packaging/Camps	Incinerator	69				
Cloth	Camps	Incinerator	21				
Multi-Material	Packaging/Camps	Incinerator/On-site landfill	15				
Metal	Packaging	On-site landfill	9				
Glass	Camps	On-site landfill	8				
Wood	Packaging	Incinerator	6				
Bottom Ash from Camp Incinerators	Historical Inventory of Ash plus on-going generation from new camp incinerators	On-site landfill	241				

Note: For assumptions used in the calculation of the quantity of generated waste for the Project, please refer to the Waste Management Plan (BAF-PH1-830-P16-0028). The calculation assumes 590 site personnel year round.

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2.6 <u>SPECIFIED SUBSTANCES (CHANGE)</u>

The Tenant shall provide:

"Expected uses of Specified Substances pursuant to a Quarry Concession Agreement that is existing or to be entered into by the Parties pursuant to this Lease;"

Expected specified substances pursuant to the Quarry Concession Agreement can be seen in Table 2-3 and Table 2-4 of Section 2.4. These quarried materials will be utilized in the construction activities as detailed in Section 2.2.

2.7 WATER USE (NO CHANGE)

The Tenant shall provide:

"Expected uses of water pursuant to a Water Compensation Agreement that is existing or to be entered into by the Parties pursuant to this Lease;"

The existing Type 'A' Water Licence 2AM-MRY1325, and the construction Type 'B' Water Licence, 8BC-MRY1416, permits the maximum following water use for domestic and industrial purposes during construction phase of the Project as shown in the table below. As per clause 22 of the Water Compensation Agreement Baffinland will pay a Consumptive Payment for Water Use, in connection with Project for the maximum number of cubic meters of water permitted to be used or withdrawn annually as defined in the water licences issued to BIM by NWB.

Table 2-6: Water Use for Domestic and Industrial Purposes during Construction Phase (No Change)

Site	Source	Volume	Combined Volume
Milne Port (Milne Inlet)	Phillips Creek (Summer) Km 32 (Winter)	367.5m³/day	134,130 m³/year
Mine Site (Mary River)	Camp Lake	657.5 m³/day	240,000 m³/year
Steensby Port (Steensby Inlet)	ST 347 km Lake 3 km Lake	435.8 m³/day	155,400 m³/year
	TOTAL	1460.8 m³/day	529,530 m³/year

Source: Type 'A' Water Licence, 2AM-MRY1325 and Type 'B' Water Licence (8BC-MRY1416)

2.8 <u>MATERIALS SHIPPED OUT (NO CHANGE)</u>

The Tenant shall provide:

"Expected quantities of materials that will be shipped off the Property:"

Expected quantities of materials planned to be shipped off site in 2015 are detailed in Table 2-7 and Table 2-8. Table 2-7 provides estimated hazardous waste and hazardous material quantities to be shipped off site during 2015 and is based on projections detailed in the Hazardous Material and Waste Management Plan (BAF-PH1-830-P16-0011 r2) for the Project with an additional allowance for decommissioned bladder farm materials. Table 2-8 details quantities of any additional material planned to be demobilized from site in 2015.

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Table 2-7: Hazardous Waste Generation Estimate for 2015 (No Change)

Waste Category	Waste Description	Disposal Method	2015 Est. Generation (kg/person/day)	Person Days On- Site	Est. Total Annual Production (tonnes)
		2015 Work Plan			
Batteries	Misc.	Shipped off Site	0.125		27
Hydro Carbon Contaminated Material	Sludge, Absorbents, Oil Filters etc	Incinerated/Shipped off Site	0.288		62
Waste Oil	Maintenance	Incinerated/Shipped off Site	1.732		373
Waste Fuels	Maintenance	Incinerated/Shipped off Site	0.129		28
Waste Grease	Domestic/ Maintenance	Incinerated/Shipped off Site	0.046	119082	10
Waste Hazardous Liquids	Other, Paint, Oily Water	Shipped off Site	0.561		121
Waste Aerosol Canisters	Misc.	Shipped off Site	0.004		1
Contaminated Containers/Solids	Various	Shipped off Site	0.447		96
Misc Hazardous Materials	Misc.	Shipped off Site	0.350		75

Note: For 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). The calculation assumes 590 site personnel year round.

Table 2-8: Materials to be shipped out in 2015 (No Change)

Description	Equipment Type	Quantity
Winch Truck	Mobile equipment	1
Pick-up F350	Mobile equipment	9
Mechanic Truck F550	Mobile equipment	2
Bus	Mobile equipment	1
Fuel Truck	Mobile equipment	2
Roll-off / Vac Truck	Mobile equipment	2
Crane - 60 ton – with jib	Mobile equipment	1
Packer CS563	Mobile equipment	1
Skid Steer	Mobile equipment	2
Crusher and Screener unit	Crushing & Screening	1
Water Truck	Mobile equipment	1
Loader with bucket	Mobile equipment	5
Dozer D8T	Mobile equipment	2

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Description	Equipment Type	Quantity
Dozer D7R	Mobile equipment	1
Grader 16H	Mobile equipment	1
Grader 14H	Mobile equipment	1
Excavator 345C	Mobile equipment	2
Rock Truck 773E	Mobile equipment	2
Shop - Norseman 40'x60'	Structure	4
Compressor 375HD PQ - Trailer Mounted (S/B C250)	Mobile equipment	1
Light Tower 8 KW	Structure	8
Tanker Trailer 50,000L	Mobile equipment	2
Scissor Deck	Mobile equipment	1
Welder mounted on Trailer - Ideal Arc DC600	Mobile equipment	1
Office Trailer	Structure	2
49 Person Accommodation Complex	Structure	1
Sewage Treatment Plant	Structure	1
Duel Burner Incinerator	Structure	1
Sewage Holding Tank	Tank	1
Washroom / Lunchroom (Wheeled) (survival shack)	Shop / maintenance equipment	2
Seacan 20'	Container	36
Generator	Generator	3

2.9 MATERIALS SHIPPED IN (CHANGE)

The Tenant shall provide:

"Expected quantities of materials that will be shipped to and stored on the Property;"

At least two bulk fuel deliveries will occur during the 2015 sealift. At the onset of the shipping season, arctic diesel and Jet A fuel will be delivered to fill the tanks at the Milne tank farm.

The anticipated fuel delivery is as follows:

Table 2-9: 2015 Anticipated Fuel Delivery (No Change)

	Diesel	Jet A
Total Bulk Fuel Delivery	45 ML	2 ML

Source: FEIS ERP Addendum Key Project Facts Table, Volume One

Materials, equipment, supplies, buildings and machinery to support construction and operations through the remainder of 2015 and 2016 will arrive on the 2015 sea lift include:

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DESCRIPTION	Equipment Type	Quantity
CAT 777 Dump Box	Spares	2
Compactor	Mobile equipment	1
Ore Haul Truck Workshop Office Washcar Sewage Collection Tank	Tank	1
Potable Water Storage Tank	Tank	1
Potable Water Storage Tank	Tank	1
Potable Water Treatment Plant, Vendor Package	Vendor package	1
Raw Water Tank	Tank	2
Stockpile Reclaim Extension Conveyor	Conveying	1
Sewage Treatment Plant, Vendor Package	Vendor package	1
Truck Wash Facility, Vendor Package	Vendor package	2
Grader	Mobile equipment	2
Mine Site Grader	Mobile equipment	1
Excavator	Mobile equipment	3
Mine Haul Truck	Mobile equipment	6
Mobile Crushing Front End Loader	Mobile equipment	4
Mobile Crushing Front End Loader	Mobile equipment	7
Integrated Toolcarrier	Mobile equipment	2
Single Pass, Production Drill	Mobile equipment	1
Coach Passenger Transfer Bus	Mobile equipment	2
1.35 MW Generator	Generator	3
Pickup Truck	Mobile equipment	12
Flat Deck Truck	Mobile equipment	2
Service Truck	Mobile equipment	1
Container Handler	Mobile equipment	2
Jump Conveyor	Conveying	2
Reclaim Mobile Feeder	Feeder	1
Stockpile Mobile Feeder	Feeder	1
Stockpile Mobile Stacker	Stacker / stockpile	1
Primary Crushing Plant Line 3	Crusher	1
Primary Screening Plant Line 3	Screen	1
Secondary Screening Plant Line 3	Screen	1

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DESCRIPTION	Equipment Type	Quantity
Secondary Crushing Plant Line 3	Crusher	1
Tertiary Crushing Plant Line 3	Crusher	1
Maintenance Fuel/Lube Truck	Mobile equipment	2
Water Truck	Mobile equipment	1
Service Truck	Mobile equipment	1
Ore Haul Truck Workshop Office Washcar Raw Water Pump	Pump	1
Ore Haul Truck Workshop Office Washcar Raw Water Tank	Tank	1
Tote Road Ore Haul Truck - Pup Trailer	Mobile equipment	15
Tote Road Ore Haul Truck - Lead Trailer	Mobile equipment	15
Large Mobile Light Plant	Mobile equipment	5
Mobile Light Plant	Mobile equipment	5
Tote Road Ore Haul Truck - Tractor	Mobile equipment	15

Additional supplies to support construction and operations through the remainder of 2015 and 2016 will arrive on the 2015 sea lift include:

- Delivery of ammonium nitrate (AN): 520,000 kg.
- Delivery of pre-packaged explosives: 83,000 kg.
- Delivery of maintenance parts.
- Delivery of consumables (lubricants, grease, detergents, boosters, EZ Dets, dry goods, food, household supplies, etc.).

2.10 CLOSURE AND RECLAMATION COSTS (CHANGE)

The Tenant shall provide:

"A description of the applicable provisions of the Closure and Reclamation Plan for the upcoming Year, a report of the estimated costs to be incurred to implement the Closure and Reclamation Plans for the Year and the balance of the Term;"

The provision of additional securities for the 2015 work is allocated as summarised in Table 2.10 below. Further detail can be found in Appendix B, document H349000-1000-07-126-0019.

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	Α	В	С	D	E	F	G	Н	I
	Authorization	Liability	Pre-baseline Liability (\$)	2014 Re- Baseline (\$) ²	Difference (\$)	Marginal 2015 (\$)	2015 Security Addendum (\$)	Total (\$)	Adjustment to be posted (\$)
					D-C			D+F+G	E+F+G-Type B Construction
1		IOL	40,231,000	38,886,000	(1,345,000)	2,236,000	4,248,000	45,370,000	4,992,000
2	Type A	Crown	166,000	-	(166,000)	-	0	0	(166,000)
3	2AM-MRY1325	Water	2,172,000	2,193,000	21,000	-	21,000	2,214,000	42,000
4		Land	38,225,000	36,693,000	(1,532,000)	2,236,000	4,227,000	43,156,000	4,784,000
5	y,	Subtotal Type A	40,397,000	38,886,000	(1,511,000)	2,236,000	4,248,000	45,370,000	4,826,000
6	Type P	IOL	147,000		-	-	1	-	-
7	Type B Construction	Crown	-		-	-	-	-	-
8	2BC-MRY1416	Water	-	See note 3	-	-	_	-	-
9		Land	147,000		-	-	-	-	-
10	Subtotal Type	B Construction	147,000		-	-	-	-	-
11	Type B	IOL	165,000	165,000	-	-	_	165,000	-
12	Exploration	Crown	1,082,000	1,082,000	-	-	-	1,082,000	-
13	2BE-MRY1421	Water	18,000	18,000	-	-	-	18,000	-
14	202 1411(121	Land	1,229,000	1,229,000	-	-	-	1,229,000	-
15	Subtotal Typ	e B Exploration	1,247,000	1,247,000	-	-		1,247,000	
16		IOL	-	-	-	-	_	-	-
17	DFO	Crown	3,566,000	3,566,000	-	-	-	3,566,000	-
18	ыо	Water	3,566,000	3,566,000	-	-	-	3,566,000	-
19		Land	-	-	-	-	-	-	-
20		Subtotal DFO	3,566,000	3,566,000	-	-	-	3,566,000	-
21	AANDC Land	IOL	-	-	-	-	-	-	-
22	Lease 47H/16-1-2	Crown	-	5,931,000	5,931,000	-	-	5,931,000	5,931,000
23		Water	-	-	-	-	-	-	-
24	•	Land	-	5,931,000	5,931,000	-	-	5,931,000	5,931,000
25	Subtotal AANDC	Land Lease	-	5,931,000	5,931,000	-		5,931,000	5,931,000
27		GRAND TOTAL	45,357,000	49,630,000	4,420,000	2,236,000	\$4,248,000	56,114,000	10,757,000

¹All totals rounded to nearest '000 in CAD

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² 2014 Re-baseline refers to 2014 Complete Project Financial Security Assessment, H349000-1000-07-126-0018, Rev. 1

³ The reclamation costs associated to the Type 'B' Water Licence 2BC-MRY1416 was captured under 2014 Complete Project Financial Security Assessment. The current sum of \$147,000 posted under this licence is proposed to be reallocated under Type 'A' Water licence 2AM-MRY1325 upon amendment.



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2.11 OPTION EXERCISE NOTICES (CHANGE)

The Tenant shall provide:

"All Option Exercise Notices;"

Refer to Appendix F for details.

2.12 LEASE SCHEDULE UPDATES (NO CHANGE)

The Tenant shall provide:

"Updates to items contained in the Schedules of this Lease (if applicable), including without limitation the Closure and Reclamation Plan, the Contingency and Emergency Response Plan, and the Environmental Management and Monitoring Plans;"

With the exception of the updated Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012) submitted to NWB on June 27th 2014, and Environmental Protection Plan (BAF-PH1-830-P16-0008) submitted to NIRB, NWB and QIA on July 24th 2014, all other updated Environmental Management and Monitoring Plans were submitted in March 2014 with the Annual Reports. An extensive list of these plans that were submitted can be seen in the table below:

Table 2-12: Environmental Monitoring and Management Plans (No Change)

Document Number	Plan Name
BAF-PH1-830-P16-0001	Surface Water Sampling Program - Quality Assurance and Quality Control Plan
BAF-PH1-830-P16-0002	Air Quality and Noise Abatement Management Plan
BAF-PH1-830-P16-0003	Blasting Management Plan
BAF-PH1-830-P16-0004	Borrow Pits and Quarry Management Plan
BAF-PH1-830-P16-0005	Borrow Source Management Plan
BAF-PH1-830-P16-0006	Cultural and Heritage Resource Protection Plan
BAF-PH1-830-P16-0009	Explosives Management Plan
BAF-PH1-830-P16-0010	Fresh Water, Sewage and Wastewater Management Plan
BAF-PH1-830-P16-0011	Hazardous Materials and Hazardous Waste Management Plan
BAF-PH1-830-P16-0013	Oil Pollution Emergency Plan - Milne Port (OPEP)
BAF-PH1-830-P16-0014	Oil Pollution Emergency Plan - Steensby Port (OPEP)
BAF-PH1-830-P16-0015	Quarry Management Plan D1Q1
BAF-PH1-830-P16-0016	Quarry Management Plan D1Q2
BAF-PH1-830-P16-0017	Quarry Management Plan Q1
BAF-PH1-830-P16-0018	Quarry Management Plan Q11
BAF-PH1-830-P16-0019	Quarry Management Plan Q19
BAF-PH1-830-P16-0020	Quarry Management Plan Q7
BAF-PH1-830-P16-0021	Railway Emergency Management Plan
BAF-PH1-830-P16-0022	Railway Maintenance Management Plan

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Document Number	Plan Name
BAF-PH1-830-P16-0023	Roads Management Plan
BAF-PH1-830-P16-0024	Shipping and Marine Wildlife Management Plan
BAF-PH1-830-P16-0025	Stakeholders Involvement Plan
BAF-PH1-830-P16-0026	Surface Water, Aquatic Ecosystems, Fish and Fish Habitat Management Plan
BAF-PH1-830-P16-0027	Terrestrial Environmental Management and Monitoring Plan
BAF-PH1-830-P16-0028	Waste Management Plan
BAF-PH1-830-P16-0029	Waste Rock Management Plan
BAF-PH1-830-PRO-0001	Hazard Identification and Risk Assessment Procedure
BAF-PH1-830-STD-0001	EHS Framework Standard
BAF-PH1-810-P16-0001	Health and Safety Management Plan
BAF-PH1-830-P16-0007	Emergency Response Plan
BAF-PH1-830-P16-0036	Spill Contingency Plan
BAF-PH1-700-P16-0001	Human Resources Management Plan

In accordance with Clause 5.1 item H of the existing Commercial Lease Q13C031, the updated Emergency Response Plan BAF-PH1-830-P16-0007 and Spill Contingency Plan BAF-PH1-830-P16-0036 have been provided in Appendix G and F of this Work Plan.

2.13 LEASE AMENDMENT PROVISIONS (NO CHANGE)

The Tenant shall provide:

"Requested amendments to the provisions of this Lease (if applicable);"

Appendix E.1 includes Schedule A Land Lease drawing layouts:

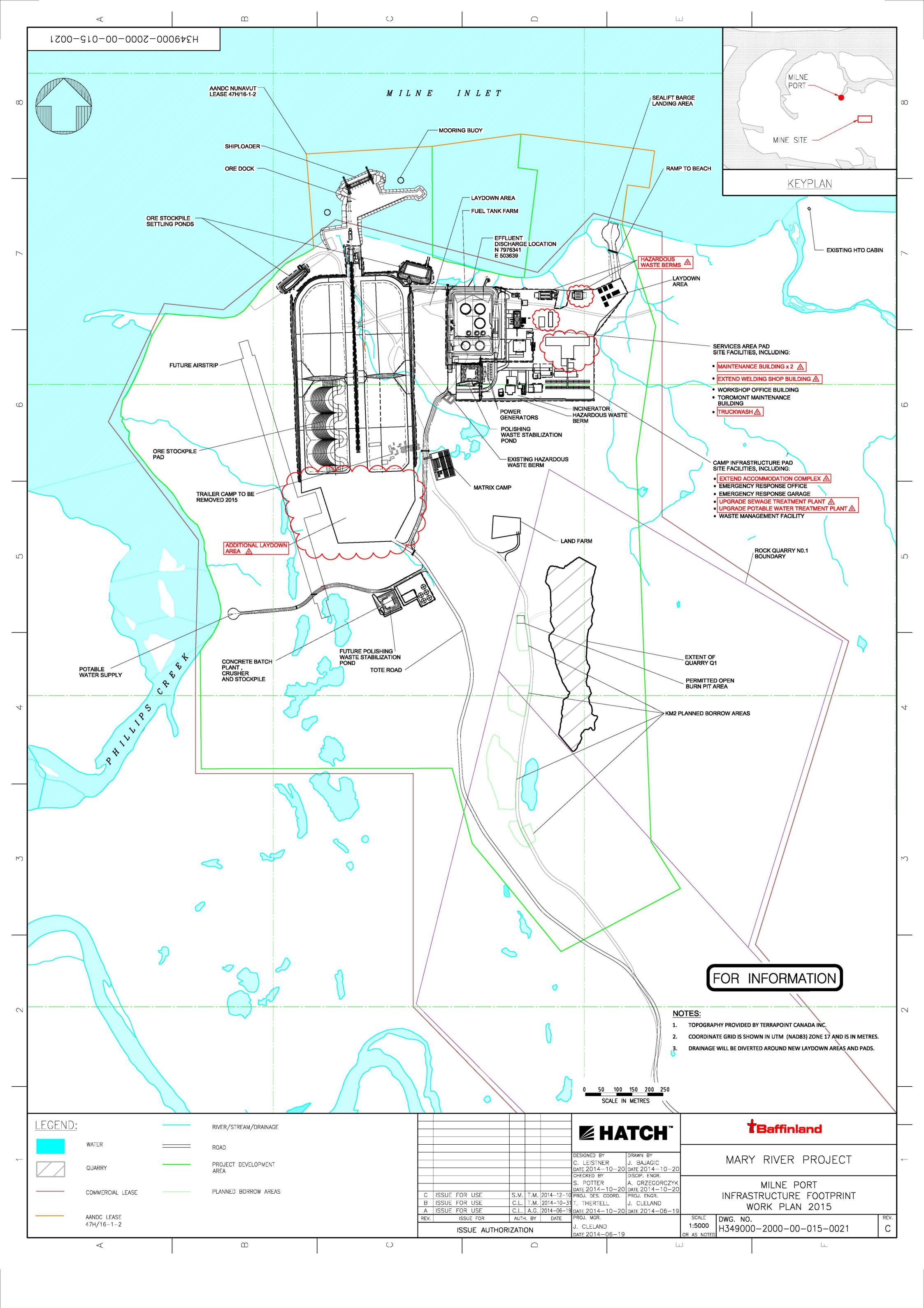
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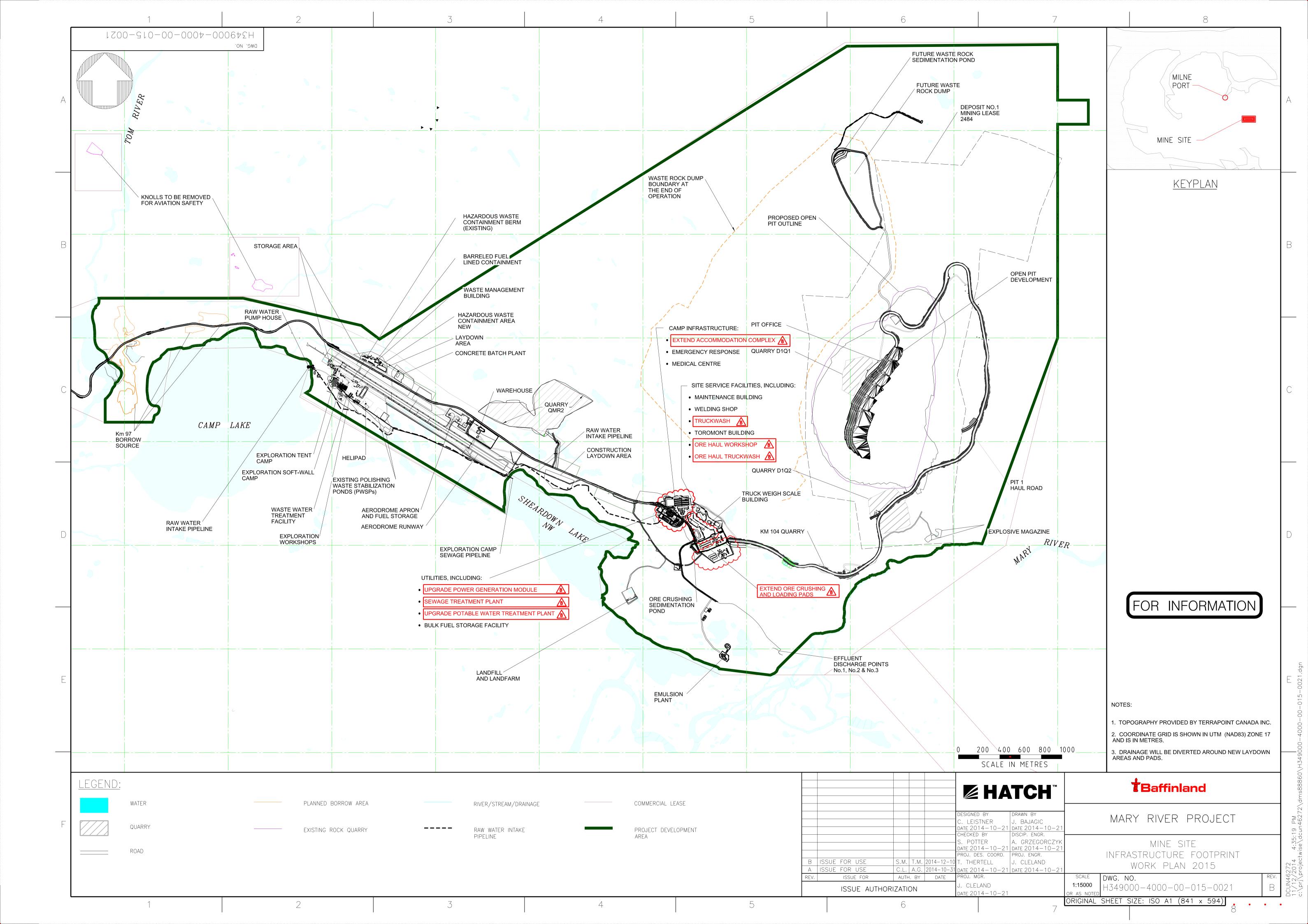
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Appendix A: 2015 Work Plan Site Layouts (Change)

H349000-2000-00-015-0021 Milne Port – Infrastructure Footprint – Work Plan 2015

H349000-4000-00-015-0021 Mine Site – Infrastructure Footprint – Work Plan 2015







Appendix B: 2015 Marginal Closure and Reclamation Financial Security Estimate (H349000-1000-07-126-0019) (No Change)



See 2015 Work Plan, dated October 31 2014

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Appendix D: Borrow Source Management Plan – Km 97 (BAF-PH1-830-P16-0032) (No Change)

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Appendix E: Commercial Lease Q13C301 – Land Lease Drawings (No Change)



Appendix E.1: Schedule A Updated Land Lease Drawings (No Change)

H349000-1000-00-015-0001	Schedule A1 – The Property
H349000-1000-00-015-0004	Schedule A2 – Mary River Impact and Exploration Area
H349000-1000-00-015-0002	Schedule A3 – Milne Inlet Impact Area
H349000-1000-00-015-0003	Schedule A4 – Deposits 4/5 Exploration Area
H349000-1000-00-015-0008	Schedule A5 – Tote Road Area
H349000-1000-00-015-0007	Schedule A6 – Tote Road Area
H349000-1000-00-015-0006	Schedule A7 – Tote Road Area
H349000-1000-00-015-0009	Schedule A8 – Mary River Rail Area



Appendix E.2: Montieth & Sutherland Land Lease Drawings (No Change)

E-1330-6 Sheet 1 of 8	Overall Impact and Exploration Areas – Mary River Project
E-1330-6 Sheet 2 of 8	Milne Inlet Impact Area – Tote Road Impact Area
E-1330-6 Sheet 3 of 8	Tote Road Impact Area Including Q8 & Q12

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E-1330-6 Sheet 4 of 8	Tote Road Impact Area
E-1330-6 Sheet 5 of 8	Tote Road Impact Area Including Q17 & P2
E-1330-6 Sheet 6 of 8	Tote Road Impact Area – Exploration Area (Deposits 4/5)
E-1330-6 Sheet 7 of 8	Mary River Impact Area – Tote Road Impact Area – Exploration Area (Deposit 2/3)
E-1330-6 Sheet 8 of 8	Rail Impact Area



Appendix F: Option Exercise Notice



Appendix F.1: Option Exercise Notice for Aerodrome Aviation Safety (No Change)



Appendix F.2: Option Exercise Notice for the Landfarm at Milne Port (No Change)



Appendix F.3: Option Exercise Notice for the Hazardous Waste Berm at Milne Port (No Change)



Appendix F.4 Option Exercise Notice for the Hazardous Waste Berm at Milne Port (Change)

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Appendix G: Emergency Response Plan (BAF-PH1-830-P16-0007) (No Change)







Appendix H: Spill Contingency Plan (BAF-PH1-830-P16-0036) (No Change)



Appendix I:

2015 Marginal Closure and Reclamation Financial Security Estimate Addendum (H349000-1000-07-126-0020) (Change)