

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIKIQATANI INUIT ASSOCIATION (QIA) AND NUNAVUT WATER BOARD ANNUAL REPORT
FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES

BAFFINLAND IRON MINES CORPORATION MARY RIVER PROJECT

**2016 QIKIQTANI INUIT ASSOCIATION (QIA) AND NUNAVUT WATER BOARD (NWB) ANNUAL
REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES**

EXECUTIVE SUMMARY

This report to the Qikiqtani Inuit Association (QIA) and the Nunavut Water Board (NWB) has been prepared to summarize the 2016 exploration and geotechnical drilling activities conducted under Baffinland Iron Mines Corporation's (Baffinland) Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and the Commercial Lease No. Q13C301 (Commercial Lease) agreed upon by the QIA and Baffinland. A separate annual report has been prepared for the QIA and NWB to summarize the Project activities and monitoring conducted under Baffinland's Type A Water Licence 2AM-MRY1325 (Type A Water Licence) in 2016 and addresses the remaining annual reporting requirements set forth in the Commercial Lease.

The scope of the Type B Water Licence focuses on exploration and geotechnical drilling activities and includes provisions and conditions regarding water use, waste management, construction and operation of satellite camps, exploration and geotechnical drilling programs, spill contingency and environmental monitoring.

During 2016, project activities carried out under the authorization of the Type B Water Licence involved a geotechnical drilling program along the Tote Road to support ongoing design studies, continued exploration activities of prospects and Baffinland's mineral leases and the care and maintenance of the Steensby Port camp. No satellite camps were operated in 2016, with all activities being based out of the Mine Site and Milne Port.

Water withdrawn under the authorization of the Type B Water Licence was minimal (7 m³) and was used solely to support the geotechnical drilling program. During 2016, water withdrawal limits stipulated in the Type B Water Licence were not exceeded.

During 2016, progressive reclamation work carried out under the Type B Water Licence was related to the 2016 geotechnical drilling program along the Tote Road and the removal of equipment and hazardous and non-hazardous waste from the Steensby Port camp via sealift.

Summary of Plans for 2017

The 2017 Work Plan was prepared and provided to relevant parties on November 4, 2016 as required under Section 6.1 of the Commercial Lease and under the Type A Water Licence, Part J, Item 3 for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. The 2017 Work Plan describes the planned development and operation of Project, including exploration and geotechnical drilling activities planned for 2017.

The exploration activities for 2017 have not yet been finalized however at this current time it is anticipated that exploration activities will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases as well as a drilling program on Deposits No. 1 and 3. In addition, it is anticipated that there will be a geotechnical drilling program conducted during 2017 to support ongoing engineering design studies. Once proposed drilling locations are finalized for both drilling programs, this information will be provided to the NWB and QIA prior to the commencement of drilling activities.

The operation of the Steensby Port camp, Mid Rail camp and/or other additional satellite camps are not anticipated to be required to support exploration or geotechnical drilling activities in 2017.

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SECTION 1.0 - INTRODUCTION

This report to the Nunavut Water Board (NWB) and the Qikiqtani Inuit Association (QIA) has been prepared to summarize the 2016 exploration and geotechnical drilling activities conducted under Baffinland Iron Mines Corporation's (Baffinland) Type B Water Licence 2BE-MRY1421 (Type B Water Licence) and the Commercial Lease No. Q13C301 (Commercial Lease) agreed upon by the QIA and Baffinland. A separate annual report has been prepared for the NWB and QIA to summarize the Project activities and monitoring conducted under Baffinland's Type A Water Licence 2AM-MRY1325 (Type A Water Licence) in 2016 and addresses the remaining annual reporting requirements set forth in the Commercial Lease. Concordance tables referencing where in this report annual reporting requirements outlined in the Commercial Lease and Type B Water Licence have been met are presented in Appendix A.

The scope of the Type B Water Licence focuses on exploration and geotechnical drilling activities and includes provisions and conditions regarding water use, waste management, construction and operation of satellite camps, exploration and geotechnical drilling programs, spill contingency and environmental monitoring. Activities and data discussed in this report are summarized and referenced in the completed NWB Annual Report Forms, included as Appendix B of this report.

Figures 1.1 and 1.2 present the locations of the key areas associated with the Mary River Project where activities in 2016 were undertaken. Key areas involved with exploration activities and geotechnical drilling in 2016 included Milne Port, the Milne Inlet Tote Road, the Mary River Mine Site and Steensby Port. Although the Steensby Port site was used to refuel helicopters transporting exploration field crews, both Steensby Port and Mid-Rail camps remained closed throughout 2016 and were not used to house personnel associated with the 2016 exploration or geotechnical drilling activities.

1.1 SUMMARY OF EXPLORATION AND DRILLING ACTIVITIES FOR 2016

During 2016, exploration activities were based out of the Mine Site exploration camp and consisted of day trips by helicopter to prospects and Baffinland's mineral leases to conduct mapping, sampling and geophysical and geochemical surveys. No exploration drilling programs were conducted in 2016. Moreover, no satellite camps, including the Steensby and Mid-rail camps, were constructed and/or operated to support exploration activities in 2016.

To support ongoing engineering design studies, a geotechnical drilling program was conducted along the Tote Road corridor during October to December, 2016. The drilling program consisted of one hundred eight (108) drill holes using a sonic drill to evaluate geotechnical conditions and five (5) drill holes using a rotary coring drill to evaluate proposed future quarry locations. In several cases, a combination of both drilling techniques were required to complete drill holes. The equipment utilized for the program included a tracked drill rig (LS 250), capable of drilling using both sonic and rotary coring techniques. Other supporting track vehicles include a tracked flatbed vehicle (Nodwell type) for hauling water and other supplies and a skid steer for moving drill rods and other equipment/supplies.

On October 9, 2016, Baffinland submitted a letter to the NWB, INAC and QIA to notify stakeholders and regulators of the geotechnical drilling program. As required by the Type B Water Licence under Part F, Item 2 and Part C, Item 2 the submission outlined the 2016 geotechnical drilling program and included the proposed water take sources required to support drilling activities and the locations of the drill holes within 31 meters of a water body. A copy of the submission is provided in Appendix C of this report.

The locations of the geotechnical drill holes associated with the 2016 geotechnical program are provided in Table 1.0 and are shown in Figure 1.3.

1.2 REGULATORY FRAMEWORK

Although the key regulatory and legal documents that relate to this report are the Commercial Lease with the QIA and the Type B Water Licence (2BE-MRY1421) issued by the NWB, this report is presented also in context of other applicable regulatory authorizations and schedules. A list of the regulatory permits and authorizations that allowed for the work to be completed by the Mary River Project in 2016 is presented below. The reader is referred to the 2016 NIRB Annual Report for a summary of compliance status and report submissions relative to the other key permits and authorizations.

Permit or Licence No.	Licence Name	Status Update for 2016	Expiry
Nunavut Impact Review Board			
No. 005	Amended Project Certificate	All works and activities proposed have been screened by the NIRB and have been considered in the amended Project Certificate issued by the NIRB in May 2014. A NIRB Annual Report is submitted by March 31 of each year summarizes the status of the Project relative to the conditions outlined in the Project Certificate.	N/A
Nunavut Water Board Licences			
2AM-MRY1325	Type A Water Licence – Amendment No. 1	In good standing; no amendments from previous year.	June 10, 2025
2BE-MRY1421	Type B Water Licence	In good standing; no amendments from previous year.	April 16, 2021
Qikiqtani Inuit Association			
Q13C301	Inuit Owned Land Commercial Lease	Compliance with the lease is outlined in the <i>2016 QIA and NWB Annual Reports</i>	December 31, 2043
-	Inuit Impact and Benefit Agreement	Compliance with the agreement is outlined in the annual IIBA implementation report submitted by March 31 st of each year.	-
Crown Land Use Permits and Quarry Permits			
47H16-1-2	Foreshore Area for Milne Port Ore Dock Lease	In good standing; no changes from previous year. Will be renewed.	June 30, 2035
N2014Q0016	Tote Road and Borrow Area Land Use Permit	In good standing; no changes from previous year. Will be renewed.	June 30, 2017

Permit or Licence No.	Licence Name	Status Update for 2016	Expiry
N2014C0013	Steensby and Milne Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
N2014J0011	Bruce Head Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
N2014X0012	Milne Foreshore Land Use Permit	In good standing, no changes from previous year. Will be renewed.	June 30, 2017
Authorizations under the Fisheries Act			
06-HCAA-CA7-0084	Crossings along the Milne Inlet Tote Road Authorization	The authorization remains valid and has been amended over the years. Monitoring and reporting to DFO occurs annually.	December 31, 2016
14-HCAA-00525	Fisheries Authorization – Milne Ore Dock	A monitoring report for the construction of the ore dock was submitted to DFO on January 4, 2016.	December 31, 2020
NU-06-0084	Fisheries Authorization – Tote Road	-	N/A
Various Letter of Advice	Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements	-	N/A
Approvals under the Navigable Waters Protection Act (Transport Canada)			
8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271	Construction of Watercourse Crossings (Bridges and Culverts)	In good standing, no changes from previous year.	Until complete
4306-2-6- P/B	Occasional-Use Marine Facility	In good standing, no changes from previous year.	June 30, 2018
Licence under the Explosives Act			
F76068	Division 1 Factor Licence	Held by explosives contractor for the Project.	-

1.3 SUMMARY OF PLANNED EXPLORATION AND GEOTECHNICAL ACTIVITIES FOR 2017

The 2017 Work Plan was prepared and provided to relevant parties on November 4, 2016 as required under Section 6.1 of the Commercial Lease and under the Type A Water Licence, Part J, Item 3 for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. The 2017 Work Plan describes the planned development and operation of Project, including exploration and geotechnical drilling activities planned for 2017.

The scope of Baffinland's Type B Licence (2BE-MRY1421) and Commercial Lease allows for Baffinland to continue to undertake exploration activities and drilling programs at Project areas and Baffinland's mineral leases in the Qikiqtani Region of Nunavut. This includes exploration land use areas as defined in Section 2.2 of the Commercial Lease.

The exploration activities for 2017 have not yet been finalized however at this current time it is anticipated that exploration activities will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases as well as a drilling program on Deposits 1 and 3. In addition, it is anticipated that there will be a geotechnical drilling program conducted during 2017 to support ongoing engineering design studies. Once proposed drilling locations are finalized for both drilling programs, this information will be provided to the NWB and QIA prior to the commencement of drilling activities.

The operation of the Steensby Port Camp, Mid Rail Camp and/or additional satellite camps are not anticipated to be required to support exploration or geotechnical drilling activities in 2017.

SECTION 2.0 - WATER USE AND WASTE DISPOSAL ACTIVITIES

2.1 WATER USE

Under the authorization of the Type B Water Licence (2BE-MRY1421) water was withdrawn in 2016 for drilling purposes only. As per Type A Water Licence condition, Part B, Item 2, in cases where there were conflicts between the Type B Water Licence and the Type A Water Licence, Baffinland proceeded with the terms and conditions of the Type A Licence.

The following sections describe water use and the associated authorized sources under the Type B Water Licence.

2.1.1 Quantities of Freshwater Used for Domestic Purposes

During 2016, water was not withdrawn under the authorization of the Type B Water Licence for domestic (camp) purposes. No satellite camps were operated to support exploration and drilling activities in 2016.

2.1.2 Quantities of Freshwater Used for Drilling Activities

From October to December 2016, a geotechnical drilling program was conducted along the Tote Road corridor. Due to the close proximity of the geotechnical drill holes to the Tote Road, water requirements for the geotechnical drilling program were provided from authorized Tote Road water sources already established under the Type A Water Licence (Km 32 Lake and BG50). Both water sources are located on Inuit-owned lands. Locations of water sources used in 2016 are presented in Table 2.1.

During the 2016 geotechnical program, 5 cubic metres (m³) were withdrawn from BG50 (Km 62 Bridge) on October 25, 2016. An additional 2 cubic metres (m³) were withdrawn from Km 32 lake on December 6, 2016. The low water requirements for the 2016 geotechnical program are attributed to the fact that the majority of geotechnical drill holes were performed using a sonic drill rig which did not require water to operate. Water requirements during the 2016 geotechnical drilling program are attributed to the few drill holes requiring rotary core drilling (diamond drilling).

No exceedances of the authorized daily withdrawal rate of 250 m³ for all drilling activities conducted under the Type B Water Licence were reported in 2016.

The locations of the geotechnical drill holes associated with the 2016 geotechnical program are provided in Table 1.0 and are shown in Figure 1.3.

2.2 SEWAGE, GREYWATER AND WASTE MANAGEMENT

Satellite camps were not operated to support exploration and drilling activities in 2016. Personnel associated with exploration activities and the 2016 geotechnical program were based out of the Mine Site and Milne Port camps, operated under the Type A Water Licence. Because of this, sewage, greywater and solid waste generated by exploration activities and the 2016 geotechnical program have been captured under the Type A Water Licence. The reader is referred to the *2016 QIA and NWB Annual Report for Operations* for additional details on sewage, greywater and waste generated under the Type A Water Licence during 2016.

In August, a backhaul sealift from Steenbsy Port occurred to transport historical hazardous and non-hazardous waste for disposal at an approved/licenced facility in Southern Canada and transfer unused mobile equipment and accommodation infrastructure to Milne Port. No hazardous and/or non-hazardous waste was backhauled to communities in Nunavut during 2016.

SECTION 3.0 - SPILLS

Under the Type B Water Licence, there were no spills in 2016 that met or exceeded the reporting threshold as outlined in the Nunavut Spill Contingency Planning and Reporting Regulations.

SECTION 4.0 - MODIFICATIONS

Modifications or major maintenance work were not undertaken on water or waste related structures during 2016 under the Type B Water Licence.

SECTION 5.0 - MONITORING

The 2016 geotechnical drilling program consisted of land based drill holes along the Tote Road corridor. As a result, the surface water monitoring program, outlined in Part J of the Type B Water Licence, was not required.

To minimize the potential for disturbance of heritage sites, an archaeology survey of the areas to be drilled was completed during summer 2016. Observed archaeology sites that had the potential of being disturbed by geotechnical drilling activities were identified and staked off.

Daily environmental monitoring, including the completion of pre, during and post inspections, was performed at drill hole locations by onsite Environmental personnel. Protocols and mitigation measures consistent with Baffinland's Environmental Protection Plan (BAF-PH1-830-P16-0008) for the management of fuel, hazardous materials, and waste were employed during the drilling program.

SECTION 6.0 - RECLAMATION AND CLOSURE

6.1 PROGRESSIVE AND FINAL RECLAMATION

During 2016, progressive reclamation carried out under the Type B Water Licence was related to the 2016 geotechnical drilling program along the Tote Road and the removal of equipment and hazardous and non-hazardous waste from the Steensby Port camp via sealift.

Following the completion of each drill hole, as per Part I, Section 9 of the Type B Water Licence, all drilling equipment was removed and drill hole locations were restored to their natural condition. Photographs taken of conditions before, during and after the completion of several drills holes performed during the 2016 geotechnical drilling program are presented in Appendix C. Frozen ground conditions and snow cover during the 2016 drilling program resulted in minimal ground disturbance by drill crew equipment travelling between drill holes. Due to its close proximity, the Tote Road was used to transport drill equipment between drill holes, wherever practical.

In August, a backhaul sealift from Steensby Port occurred to transport historical hazardous and non-hazardous waste for disposal at an approved/licenced facility in Southern Canada and transfer unused mobile equipment and accommodation infrastructure to Milne Port.

6.2 CURRENT RESTORATION LIABILITY

The current status of restoration liability for the Project, including exploration and drilling activities conducted under the Type B Water Licence, is summarized in Table 6.1.

SECTION 7.0 - PLANS, REPORTS AND STUDIES

7.1 SUMMARY OF STUDIES REQUESTED BY THE BOARD

In 2016, studies were not requested by the Board.

7.2 REVISIONS TO PLANS REPORTS AND MANUALS

An annual review of the management plans developed under the Type B Water Licence was completed. The current versions of the management plans reflect current operations, protocols and procedures.

Management Plan	Current Version	Updated Since 2015 QIA/NWB Annual Report?
Exploration Spill Contingency Plan	June 2014	No update required.
Exploration Closure and Reclamation Plan	July 2014	No update required.

7.3 SUMMARY OF FUEL STORAGE

Fuel storage and refueling facilities at the Mine Site, Milne Port and Steensby Port were used to support exploration and geotechnical drilling activities in 2016. Fuel requirements for exploration activities in 2016, consisted mainly of Jet-A fuel and were supplied using drummed Jet-A fuel stored in lined containment berms at the Mine Site and Steensby Port. As of December 31st, 2016 there were 1504 - 205 L drums of fuel (624 Arctic diesel and 880 Jet-A1) stored at Steensby Port and 416 - 205 L drums (408 Jet-A1 and 8 gasoline) at the Mine Site. All drummed fuel at Project sites are stored within lined secondary containment structures.

Fuel requirements for the 2016 geotechnical drilling program consisted of diesel fuel (P50) and were supplied by the Mine Site and Milne Port bulk fuel facilities (tank farms). The drill rig and supporting equipment (Nodwell flatdeck, skidsteer) were refueled near the Tote Road using pick-up trucks equipped with double walled portable tanks (tidy tanks). To safeguard impacts to freshwater bodies, refueling activities adhered to the protocols and mitigation measures (i.e. spill trays, spill kits) outlined in Baffinland's Environmental Protection Plan (BAF-PH1-830-P16-0008).

7.4 INSPECTION AND COMPLIANCE REPORTS

During 2016, Baffinland did not receive any inspection and/or compliance reports from the Water Licence Inspector (INAC) outlining concerns pertaining to the scope of the Type B Water Licence.

7.5 SUMMARY OF ARTESIAN FLOWS

During the 2016 geotechnical drilling program, artesian flows were not observed at any of the drill holes.

7.6 SUMMARY OF GEOCHEMICAL ANALYSIS OF DRILL CORES

As of March 31, 2017, geochemical analysis of geotechnical drill cores collected during the 2016 geotechnical drilling program has not been completed and is not planned for future drill core analysis.

SECTION 8.0 - PUBLIC CONSULTATIONS

Throughout 2016, Baffinland continued to consult with the North Baffin communities and organizations, regarding ongoing construction activities at site, operations and the 2016 shipping season, progress regarding employment from the North Baffin communities, environmental monitoring activities and results, and future phases of the Mary River Project. Baffinland's senior management team continued to participate in these meetings. The list of meetings held during 2016 is presented in Table 8.1.



**TABLE 1.0
BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**2016 QIA AND NWB ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES
2016 GEOTECHNICAL DRILL HOLE LOCATIONS**

Name	UTM*		Lat/Long	
	Easting	Northing	Latitude	Longitude
BH16-B001	514191	7965675	71.79105893	-80.5931108
BH16-B002	514290	7965604	71.79041639	-80.59028616
BH16-B003	514357	7965533	71.78977577	-80.58837913
BH16-B004	514367	7965540	71.78983792	-80.58809107
BH16-B009	542204	7922291	71.39881225	-79.8144794
BH16-B010	542208	7922304	71.39892808	-79.81435991
BH16-B011	542365	7922121	71.39726003	-79.81005209
BH16-B012	542376	7922131	71.39734773	-79.80973768
BH16-B013	555619	7914671	71.32778455	-79.44331344
BH16-B014	555599	7914683	71.32789672	-79.44386431
BH16-B015	555824	7914884	71.32964619	-79.43742452
BH16-B016	555830	7914892	71.3297165	-79.43725087
BH16-M001	503504	7976237	71.88615447	-80.89902347
BH16-M002	503757	7975894	71.88307542	-80.89175041
BH16-M003	503714	7975892	71.88305818	-80.89298946
BH16-M004	503302	7975591	71.8803658	-80.90487397
BH16-M005	503270	7975606	71.88050073	-80.90579517
BH16-M006	503136	7975081	71.87579575	-80.90967821
BH16-M007	503822	7974945	71.87456624	-80.88992751
BH16-M008	503771	7974959	71.87469258	-80.89139557
BH16-M009	503904	7974935	71.87447523	-80.88756648
BH16-M010	503394	7974877	71.87396321	-80.90225694
BH16-M011	503339	7974868	71.87388331	-80.90384128
BH16-M012	503268	7974848	71.87370501	-80.90588688
BH16-M013	503140	7974820	71.87345573	-80.90957428
BH16-M014	503052	7974782	71.87311622	-80.91211009
BH16-M015	503007	7974799	71.87326921	-80.91340527
BH16-Q001	505308	7972797	71.8552796	-80.847288
BH16-Q7001	529144	7927494	71.44739751	-80.1792955
BH16-Q7002	530561	7928150	71.45310169	-80.13913477
BH16-Q7003	531053	7929065	71.46124108	-80.12490457
BH16-Q7004	529264	7927466	71.44713186	-80.17592745
BH16-R003	504513	7975552	71.87999588	-80.86998927
BH16-R004	507259	7970638	71.83587096	-80.79137274
BH16-R005	509249	7968499	71.81662394	-80.73445056
BH16-R006	508438	7969804	71.82835433	-80.75758442
BH16-R007	510940	7967349	71.80624098	-80.68607272
BH16-R008	512763	7966604	71.79946969	-80.6338921
BH16-R009	514366	7965535	71.78979725	-80.58810744
BH16-R010	515332	7963810	71.77426705	-80.5607862
BH16-R011	516719	7962461	71.76207565	-80.52137424
BH16-R012	516716	7962464	71.76210551	-80.52144649
BH16-R013	518856	7959178	71.73248424	-80.4610252
BH16-R014	519701	7957349	71.7160179	-80.43736087
BH16-R015	520756	7955701	71.70115294	-80.40769515
BH16-R016	521588	7953865	71.68461845	-80.38448877
BH16-R017	521737	7952929	71.67621351	-80.38051474
BH16-R018	521854	7951940	71.66733629	-80.37747129
BH16-R019	521994	7950962	71.65855549	-80.3737726
BH16-R020	521842	7949969	71.64966727	-80.37839126
BH16-R021	521784	7948976	71.6407703	-80.38033186
BH16-R022	522305	7948153	71.63334354	-80.36575857
BH16-R023	522505	7947177	71.62457473	-80.36036605
BH16-R024	522558	7946129	71.6151743	-80.35917594
BH16-R025	522989	7945094	71.60585408	-80.34725101
BH16-R026	523165	7944366	71.5993104	-80.34247917
BH16-R027	523442	7942265	71.58044763	-80.33527384
BH16-R028	524061	7940538	71.56490313	-80.31827567
BH16-R029	525062	7938851	71.54967578	-80.29047836
BH16-R030	525291	7937897	71.54109895	-80.28431585
BH16-R032	525991	7936109	71.52499421	-80.26512481
BH16-R033	526653	7935439	71.51891458	-80.24664553
BH16-R034	527056	7933500	71.50148619	-80.23594899
BH16-R035	527423	7932310	71.49077604	-80.22601671
BH16-R036	527210	7931660	71.4849732	-80.2322608
BH16-R037	527873	7929786	71.46809651	-80.21424376
BH16-R038	528501	7928421	71.4557854	-80.19705351
BH16-R039	528666	7927955	71.45158805	-80.192581
BH16-R040	528686	7927755	71.44979267	-80.19209305
BH16-R041	528605	7927754	71.4497934	-80.1943744
BH16-R042	528517	7927713	71.44943634	-80.19686786
BH16-R043	528428	7927675	71.44910626	-80.19938825
BH16-R044	528736	7926992	71.44294646	-80.19097268
BH16-R045	528961	7926756	71.44080364	-80.1847285
BH16-R046	529065	7926599	71.43938356	-80.18186103
BH16-R053	528238	7928027	71.45228441	-80.20460807



**TABLE 1.0
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**2016 QIA AND NWB ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES
2016 GEOTECHNICAL DRILL HOLE LOCATIONS**

Name	UTM*		Lat/Long	
	Easting	Northing	Latitude	Longitude
BH16-R067	535406	7918572	71.36657223	-80.00711249
BH16-R068	537046	7919096	71.37102254	-79.96087895
BH16-R069	539489	7920583	71.38396345	-79.89160524
BH16-R070	540273	7921201	71.38937313	-79.86928057
BH16-C006	508897	7968767	71.81904028	-80.74452416
BH16-C007	517221	7962080	71.75862643	-80.50707961
BH16-C008	520080	7956909	71.71204128	-80.42665711
BH16-C009	522032	7948728	71.63852401	-80.37335101
BH16-C010	522513	7946595	71.6193563	-80.36031394
BH16-C011	525427	7937567	71.53812602	-80.28057893
BH16-C012	526569	7935536	71.51979356	-80.24898548
BH16-C015	536142	7918691	71.36752952	-79.98642101
BH16-C016	536362	7918814	71.36859899	-79.98019432
BH16-C017	538597	7919724	71.37640812	-79.91706838
BH16-C018	546111	7920740	71.38419112	-79.70569738
BH16-C019	546163	7920494	71.3819761	-79.7043862
BH16-C019B	546214	7920455	71.38161672	-79.70297877
BH16-C020	546402	7920072	71.37814745	-79.69793562
BH16-C021	546593	7919917	71.37672116	-79.69267186
BH16-C022	547077	7919746	71.37509409	-79.6792009
BH16-C023	547304	7919643	71.3741263	-79.67289773
BH16-C024	547530	7919537	71.3731316	-79.66662509
BH16-C025	548370	7919181	71.36977311	-79.64329263
BH16-C026	550262	7918123	71.35990206	-79.59093616
BH16-C027	550416	7917928	71.35812203	-79.58674827
BH16-C028	551403	7916768	71.34751607	-79.55986609
BH16-C029	552569	7915813	71.33870472	-79.52786351
BH16-C030	555337	7915646	71.33658801	-79.4505035
BH16-C031	556864	7915216	71.33237859	-79.4080833
BH16-C032	557282	7915265	71.33271874	-79.39635073
BH16-C201	553750	7915276	71.33363107	-79.4951793
BH16-C202	554531	7915452	71.33503303	-79.47319928
BH16-C203	555007	7915451	71.33491586	-79.45987865
BH16-C204	555659	7915432	71.33459584	-79.44164573
BH16-C205	555883	7915449	71.33469636	-79.43536476
BH16-C206	556059	7915442	71.33459273	-79.43044446
BH16-C207	556679	7915415	71.3342057	-79.41311374

Note: Zone 17W, NAD 83

TABLE 2.1**BAFFINLAND IRON MINES CORPORATION**
MARY RIVER PROJECT**2016 QIA AND NWB ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES**
2016 WATER SOURCE LOCATIONS

Description	UTM Coordinates (NAD83)		Latitude	Longitude
	Easting	Northing		
	(m)	(m)		
Km 32 Lake	521,547	7,953,735	71° 41' 00" N	80° 23' 09" W
Km 62 (BG50)	529,302	7,926,860	71° 26' 30" N	80° 10' 30" W

TABLE 6.1

BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT

2016 QIA AND NWB ANNUAL REPORT FOR OPERATIONS
2017 MARY RIVER PROJECT TOTAL CLOSURE AND RECLAMATION SECURITY SUMMARY ¹

Authorization	Liability	Total Posted in 2016 (\$)	Security Determination for 2017/18 ASR (\$) ³	Adjustment to be Posted (\$)
				F-D
Type A 2AM-MRY1325	IOL ²	48,846,000	51,384,000	2,538,000
	Crown	1,210,000	1,299,000	89,000
Subtotal Type A		50,056,000	52,683,000	2,627,000
Type B Exploration 2BE-MRY1421	IOL ²	-	-	-
	Crown	1,250,000	1,247,000	-
Subtotal Type B Exploration		1,250,000	1,247,000	-
GRAND TOTAL		51,306,000	53,930,000	2,627,000

NOTES:

¹ Totals rounded to nearest '000 in CAD

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

³ As defined by January 20, 2017 NWB Correspondance, Re: Type "A" Water Licence No. 2AM-MRY1325, Baffinland Iron Mines Corporation , Mary River Mine Project: Direction from Nunavut Water Board Under the Annual Security Review Process Established Under Part C and Schedule C of the Water Licence

TABLE 8.1

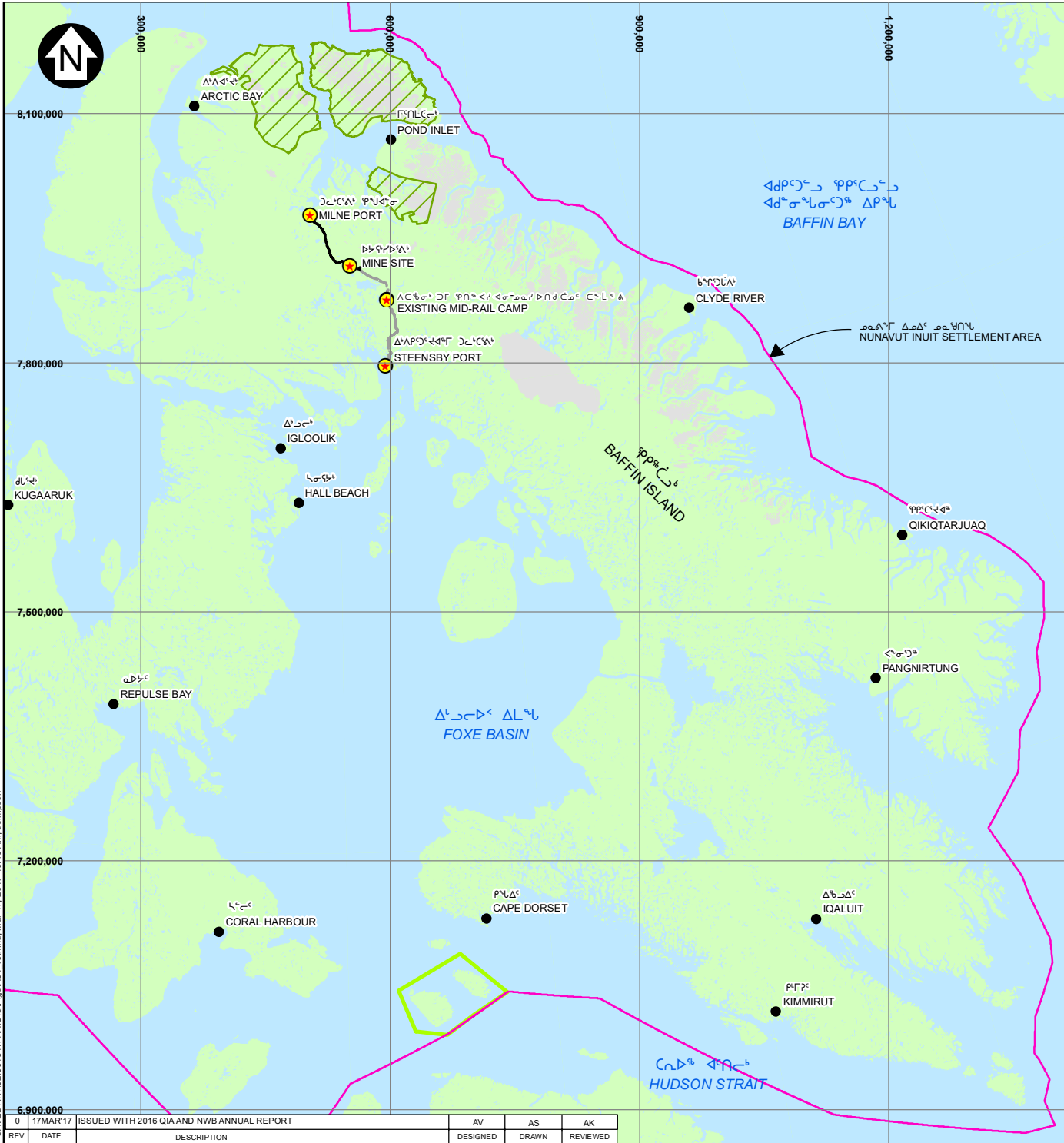
**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

2016 QIA AND NWB ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL DRILLING ACTIVITIES

MEETINGS WITH PUBLIC, GOVERNMENT AND INUIT ORGANIZATIONS

Date	Group	Location	Description
April 5 - 6, 2016	QIA	Oakville	IIBA Joint Executive Committee Meeting
April 27, 2016	Marine Environment Working Group	Ottawa	Pre-Field Season Meeting
April 28, 2016	Terrestrial Environment Working Group	Ottawa	Pre-Field Season Meeting
May 11, 2016	Mary River Community Group	Pond Inlet	Meeting with Mary River Community Group (Phase 2)
May 16, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
May 27, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
June 15 - 16, 2016	QIA	Mary River Mine Site	IIBA Joint Executive Committee Meeting
July 8, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
July 21, 2016	QIA, Baffinland	Teleconference	Lease, Closure and Security
July 22, 2016	QIA, Baffinland	Teleconference	2016 Marine Monitoring
July 22, 2016	NIRB	Call	NIRB Annual Report Comments
August 4, 2016	Marine Environment Working Group	Teleconference	2016 Marine Monitoring
August 11, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
August 16, 2016	NIRB	Call	NIRB Annual Report Comments
August 19, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
September 7 - 8, 2016	QIA	Oakville	IIBA Joint Executive Committee Meeting
September 14 - 21, 2016	QIA, Baffinland	Mary River, Nunavut	Annual Security Audit
October 17 - 20, 2016	QIA	Oakville	IIBA Joint Management Committee Meeting
October 18, 2016	NIRB	Meeting	Project and Phase 2 Update
October 20, 2016	QIA	Teleconference	IIBA Joint Executive Committee Meeting
October 21, 2016	QIA, Baffinland	Teleconference	Review and Discussion of Draft 2017 Work Plan
October 31, 2016	NWB	Call	Closure Security
November 3, 2016	WWF	Call	MEWG Meeting and Marine Monitoring
November 8 - 10, 2016	QIA	Ottawa	IIBA Joint Management Committee Meeting
November 8 - 9, 2016	QIA	Ottawa	IIBA Joint Executive Committee Meeting
November 10, 2016	QIA	Call	Winter Sealift
November 16, 2016	QIA, Baffinland	Teleconference	Ongoing Lease Items
November 16, 2016	Pond Inlet Hamlet Council Members	Mary River Mine Site	Site visit with Hamlet Council Members from Pond Inlet
November 21 - 25, 2016	HTOs (Arctic Bay, Pond Inlet), Public, Hamlet Council,	Arctic Bay, Pond Inlet, Hall Beach, Igloolik, Clyde River	Phase 2 North Baffin Community Tour
November 25, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
November 29, 2016	Marine Environment Working Group	Iqaluit	Post-Field Season Meeting
November 30, 2016	Terrestrial Environment Working Group	Iqaluit	Post-Field Season Meeting
December 1, 2016	INAC	Iqaluit	Project Update and Phase 2
December 5, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
December 6, 2016	MLA, Hamlet Council, Mittimatalik Hunters and Trappers Organization	Pond Inlet	Phase 2 and Proposed Winter Sealift
December 9, 2016	QIA, Baffinland, INAC, NWB	Teleconference	Annual Security Review Teleconference
December 13, 2016	NIRB	Teleconference	Winter Resupply
December 15 - 16, 2016	QIA	Oakville	IIBA Joint Management Committee Meeting
December 16, 2016	QIA, Baffinland	Oakville	QIA, Baffinland Relationship
December 21, 2016	QIA	Teleconference	IIBA Joint Management Committee Meeting
December 21, 2016	QIA, Baffinland	Teleconference	Ongoing Lease Items

FIGURES

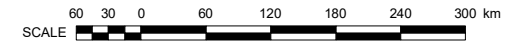


LEGEND:

- COMMUNITY
- MILNE INLET TOTE ROAD
- PROPOSED RAILWAY ALIGNMENT
- AREA OF EQUAL USE AND OCCUPANCY NUNAVUT AND NUNAVIK
- NUNAVUT INUIT SETTLEMENT AREA
- Δ WATER
- SIRMILIK NATIONAL PARK
- GLACIER

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.



ማሪየር ትራንስፖርት MARY RIVER PROJECT

PROJECT LOCATION MAP

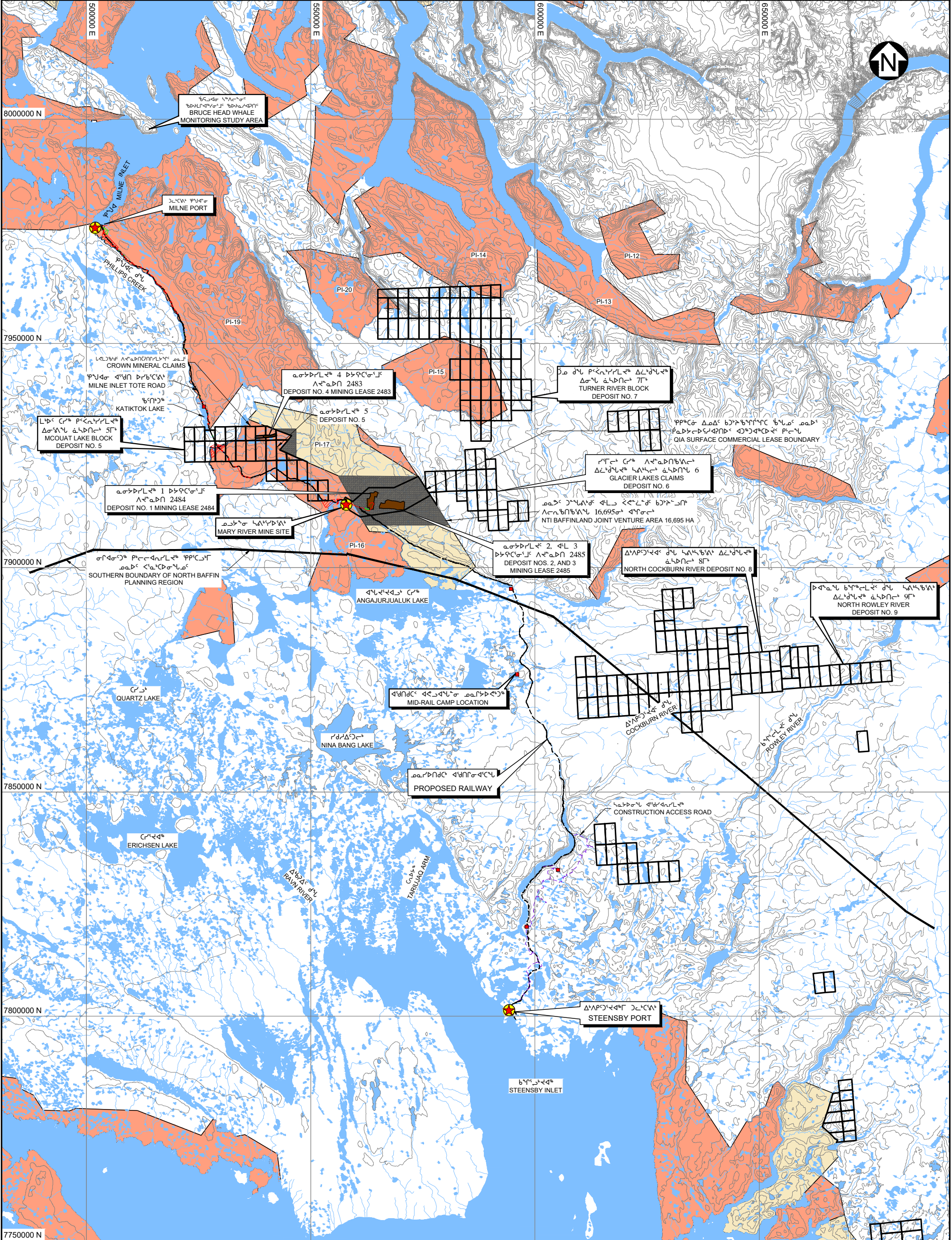
Knight Piésold
CONSULTING

P/A NO. NB102-181/41	REF NO. NB17-00137
FIGURE 1.1	REV 0

0 17MAR17 ISSUED WITH 2016 QIA AND NWB ANNUAL REPORT
 AV AS AK
 DESIGNED DRAWN REVIEWED
 REV DATE DESCRIPTION

0	17MAR17	ISSUED WITH 2016 QIA AND NWB ANNUAL REPORT	AV	AS	AK
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED

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LEGEND:

- WATER
- INUIT OWNED LAND - SURFACE ONLY EXCLUDING MINERALS
- INUIT OWNED LAND - SURFACE AND SUBSURFACE INCLUDING MINERALS
- MINERAL LEASE BOUNDARY
- CROWN LAND
- EXISTING BORROW AREA (IOL COMMERCIAL LEASE)
- EXISTING ROCK QUARRY (IOL COMMERCIAL LEASE)
- NTI EXPLORATION AREA
- CROWN MINERAL CLAIMS

NOTES:

1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES (2004). ALL RIGHTS RESERVED.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
4. PROPOSED RAIL ALIGNMENT PROVIDED BY CANARAIL CONSULTANTS INC.
5. BIM CLAIM BOUNDARIES PROVIDED BY BAFFINLAND IRON MINES CORPORATION, DECEMBER 12 2012.

SCALE: 1:50,000

0 4 8 10 20 30 40 km

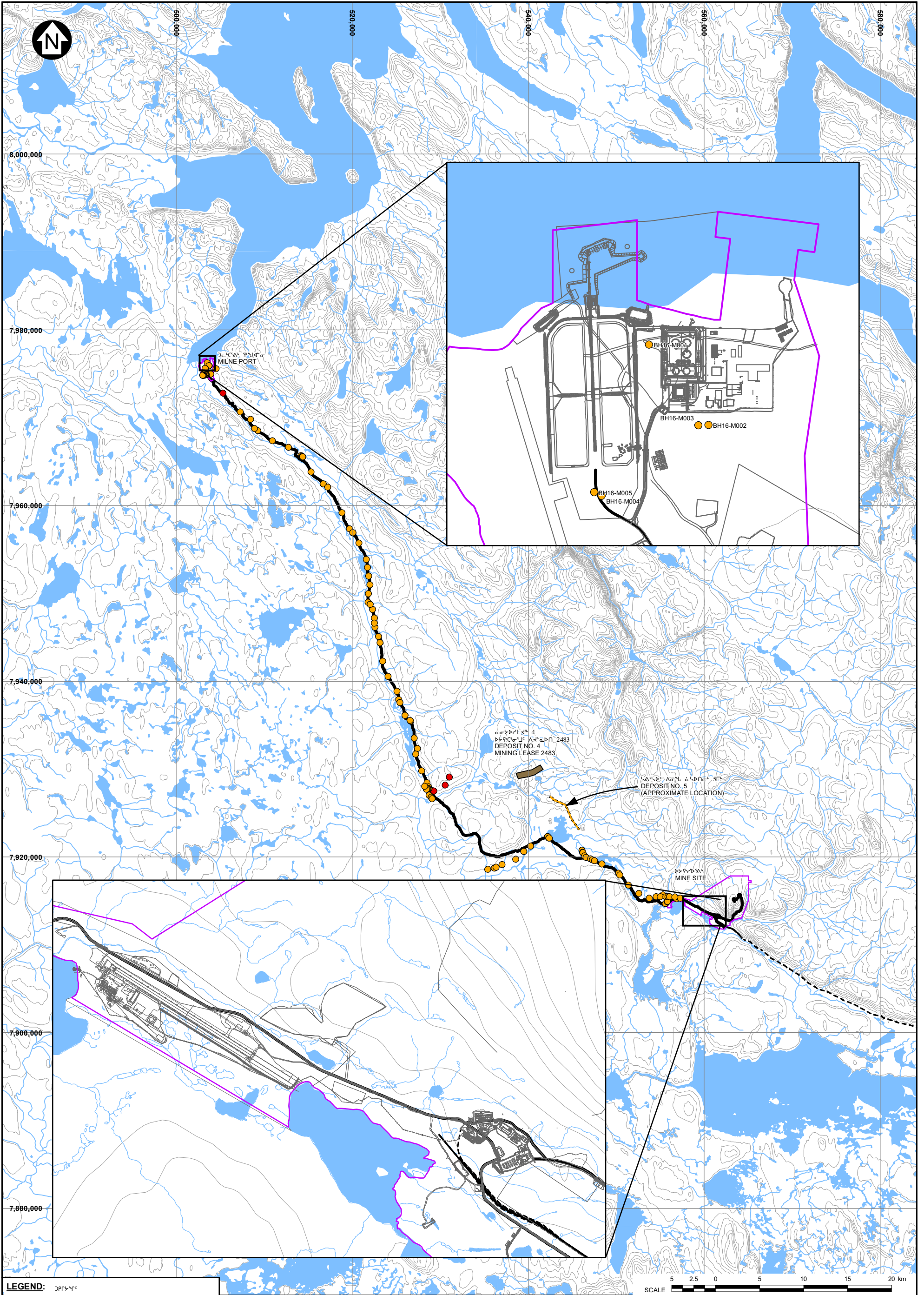
PROJECT INFORMATION:

PROJECT NAME: MARY RIVER PROJECT

ACTIVITY: LOCATION OF PROJECT ACTIVITIES

P/A NO. NB102-181/41	REF NO. NB17-00137
Knight Piésold CONSULTING	
FIGURE 1.2	REV A

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	17MAR17	ISSUED WITH 2016 QIA AND NWB ANNUAL REPORT	AV	AS	AK



LEGEND:

	2016 GEOTECHNICAL DRILLHOLE		MINERAL LEASE BOUNDARY
	2016 QUARRY DRILLHOLE		DEPOSIT NO. 5 (APPROXIMATE LOCATION)
	MILNE INLET TOTE ROAD		WATER
	PROPOSED RAIL ALIGNMENT		POTENTIAL DEVELOPMENT AREA
	EXISTING TRAILS FOR DRILLS		
	RIVER/STREAM/DRAINAGE		

- NOTES:**
1. BASE MAP: © HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES, (2004). ALL RIGHTS RESERVED.
 2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
 3. CONTOURS ARE IN METRES. CONTOUR INTERVAL VARIES.
 4. PROPOSED RAIL ALIGNMENT PROVIDED BY CANARAIL CONSULTANTS INC.
 5. INFRASTRUCTURE, AND WATER LICENCE, MONITORING LOCATIONS PROVIDED BY BAFFINLAND.
 6. INFRASTRUCTURE AT MILNE INLET AND MARY RIVER NOT SHOWN FOR CLARITY.

SCALE 5 2.5 0 5 10 15 20 km

Baffinland

MARY RIVER PROJECT

2016 GEOTECHNICAL DRILLING PROGRAM

Knights Piésold CONSULTING		P/A NO. NB102-181/41	REF NO. NB17-00137
FIGURE 1.3			

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APPENDIX A
CONCORDANCE TABLES



Concordance Table - Type B Water Licence 2BE-MRY1421

Type B Water Licence 2BE-MRY1421		2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities	
Condition No.	Condition	Report Reference/Response	
Part B. General Conditions			
<i>The Annual Report referred to in Part B, Item 6 shall include:</i>			
6	The Licensee shall file with the Board no later than March 31st of the year following the calendar year being reported, an Annual Report on the appurtenant undertaking, which shall contain the following information:	See below	Annual Report submitted on March 31, 2017.
i	the monthly and annual volumes, in cubic metres, of freshwater used for all purposes under the Licence and obtained from sources located on, in or flowing through Crown Lands;	Section 2.1	Water Use
ii	the monthly and annual volumes, in cubic metres, of freshwater used for all purposes under the Licence and obtained from sources located on, in or flowing through Inuit-owned lands;	Section 2.1	Water Use
iii	A summary, including photographic records before, during and after any relevant construction activities or modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;	N/A	Modifications or major maintenance work was not carried out for exploration and/or geotechnical drilling related activities in 2016.
iv	The geochemical analysis of drill cores as per Part F, Item 3;	Section 7.6	Summary of Geochemical Analysis of Drill Cores
v	Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;	Section 7.3	Summary of Fuel Storage
vi	Report all artesian flow occurrences as required under Part F, Item 6;	Section 7.5	Summary of Artesian Flows
vii	A list of unauthorized discharges and a summary of follow-up action(s) taken;	Section 3.0	Spills
viii	A brief description of follow-up action(s) taken to address concerns presented within inspection and compliance reports prepared by the Inspector;	Section 7.4	Inspection and Compliance Reports
ix	Updates in the form of an addendum or revisions to the Abandonment and Restoration Plan, and Spill Contingency Plan;	Section 7.2	Revisions to Plans, Reports and Manuals
x	A description of all progressive and/or final reclamation work undertaken, including drill sites, presented with photographic records of site conditions before, during and after completion of operations;	Section 6.1 Appendix C.2	Reclamation and Closure 2016 Geotechnical Drilling Program - Photo Journal
xi	An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration assessment, project development monitoring, and any changes or modifications to the project;	Section 6.2 Table 6.1	Current Restoration Liability 2016 Mary River Project Closure and Reclamation Security Summary
xii	A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;	Section 8.0	Public Consultations
xiii	A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed; and	N/A	The board did not request any further studies or reports to be submitted in 2016.
xiv	Any other details on Water use or Waste disposal requested by the Board by November 1 of the year being reported.	N/A	No other details on water use or waste disposal was requested by the Board by November 1, 2016



Concordance Table - Commercial Lease No. Q13C301

Commercial Lease No. Q13C301		2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities	
Condition No.	Condition	Report Reference/Response	
Section 6.4 - Annual Reporting Requirements			
6.4	For informational purposes, by no later than March 31 in each Year during the Term, the Tenant shall deliver to the Landlord an Annual Report for the preceding Year which shall include the following:	See below	Annual Reports were submitted on March 31, 2017.
a.	A report of activities conducted relative to what was described in the Work Plan submission for the Previous Year;	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
b.	A description of construction and infrastructure changes, additions or removals located within the boundaries of all Land Use Areas;	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
c.	All "As Built" reports available, signed and stamped by an Engineer, for all works completed as per (b) above;	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
d.	Description of any and all mining and exploration activities, and the results and outcomes thereof including:	See below	
	i. exploration activity and drilling summary	Section 1.1	Summary of Exploration and Drilling Activities for 2016
	ii. amount and type of ore and waste mined in each month	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
	iii. amount and type of ore shipped each month	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
	iv. quantities of each Specified Substance including sand, gravel, construction stone, and ice, quarried each month, broken down by individual quarry site or borrow location	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
e.	Quantities of waste deposited in the landfill, landfarm and or other approved waste storage areas each calendar quarter	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
f.	Type and quantities of materials the were shipped off the Lands	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
g.	Type and quantities of materials that were shipped to and stored on the Lands	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
h.	A detailed description of any and all Reclamation Work on the Property	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
i.	Any and all information related to a finding of non-compliance or breach of environmental standards as discovered by any Governmental Authority	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
j.	A listing and compilations of reports associated with any accident, spill, release of hazardous material in the environment, fire, emergency or loss of life	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
k.	Information respecting the Tenant's compliance with the terms of this Lease and any permits or licenses required in respect of its Operations on the Property, together with details of any incidents of non-compliance, the results of any inspection reports or orders prepared or issued by or fines levied by any competent regulatory authority and any remedial action relating thereto	N/A	Refer to <i>2016 QIA and NWB Annual Report for Operations</i>
l.	Any further reports, information or data reasonably requested by the Landlord from time to time, including Inuktitut language summary versions of such material at the request of the Landlord, acting reasonably.	N/A	No additional information or data was requested by the Landlord during 2016.

APPENDIX B
NWB ANNUAL REPORT FORMS

NWB Annual Report

Year being reported: 2016

License No: 2BE-MRY1421 **Issued Date:** April 17, 2014
Expiry Date: April 16, 2021

Project Name: Mary River Project

Licensee: Baffinland Iron Mines Corporation

Mailing Address:
 2275 Upper Middle Road East, Suite 300
 Oakville ON, Canada L6H 0C3

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

Baffinland Iron Mines Corporation

General Background Information on the Project (*optional):

Refer to Section 1.0 of the 2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

Licence Requirements: the licensee must provide the following information in accordance with

Part B ▼ Select ▼

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	Refer to Section 2.1 and Section 2.2	
Water Quantity:	17885 cu.m/year	Quantity Allowable Domestic (cu.m)
	0	Actual Quantity Used Domestic (cu.m)
	91250 cu.m/year	Quantity Allowable Drilling (cu.m)
	7	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- Solid Waste Disposal
- Sewage
- Drill Waste
- Greywater
- Hazardous
- Other:

Additional Details:

Refer to Section 2 of the 2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Refer to Section 3.0 of the 2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

Refer to Section 6.1 of the 2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details described below

Additional Details:

Refer to Table 2.1 of the 2016 QIA and NWB Annual Report for Exploration and Geotechnical Drilling Activities

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details described below

Additional Details:

Refer to Table 2.6 and Figures 1.3 and 1.5 of the 2016 QIA and NWB Annual Report for Operations

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

Date Submitted:	March 31, 2017
Submitted/Prepared by:	Andrew Vermeer
Contact Information:	Tel: (416) 364-8820 ext. 5005
	Fax: -
	email: andrew.vermeer@baffinland.com

APPENDIX C
2016 GEOTECHNICAL DRILLING PROGRAM

APPENDIX C.1
2016 GEOTECHNICAL DRILLING PROGRAM NOTIFICATION
(NWB, INAC & QIA)



October 9, 2016

Justin Hack, Resource Management Officer
Nunavut Field Operations
Aboriginal Affairs and Northern Development Canada
Box 100
Iqaluit, NU X0A 0H0

Stephen Bathory, Director Major Projects
Qikiqtani Inuit Association
P.O. Box 219
Iqaluit, NU X0A 0H0

Manager of Licencing
Nunavut Water Board
PO Box 119, Gjoa Haven, NU X0B 1J0

Re: 2016 Geotechnical Drilling Program- Type B Water Licence 2BE-MRY1421, QIA Lease No. Q13C301, INAC Land Use Permit N2014C0013.

Baffinland has commenced a geotechnical drilling program for the evaluating of geotechnical conditions adjacent and near to the existing Tote Road for the purpose of engineering studies. The program is being managed by Hatch Ltd. and performed by Boart Longyear. The program is scheduled for completion by the end of November 2017. A total of approximately 180 geotechnical boreholes are planned. The majority of these boreholes will be performed using a sonic drilling technique requiring no or little water usage (based on shallow depth through soils of around 5 metres). However, a select number of the boreholes, evaluating proposed future quarries, will require water to support rotary coring drill techniques. The quarry boreholes are planned to drill into bedrock to depths of up to around 20 metres. Refer to the attached four maps (Sheets 1 to 4) in Attachment A that show proposed borehole locations and proposed water sources in relation to the alignment of the existing Tote Road. The UTM coordinates for the drill program are presented in Attachment B.

The equipment to be utilized for the program includes a tracked drill rig (LS 250), capable of drilling using both sonic and rotary coring techniques. The diameter of the boreholes to be advanced is approximately 100 mm. Other supporting track vehicles include a flatbed (Nodwell type) for hauling water and other supplies and a skid steer for moving drill rods and other equipment/supplies. An archaeology survey of the area to be drilled and traversed was completed during summer 2016 and observed archaeology sites were identified and staked off. These coordinates have been provided, in confidence, to the drilling manager to minimize the potential for archaeological disturbance.

Under Part C, Item 1, of the Type B Water Licence 2BE-MRY1421, Baffinland is required to provide notification to the Board and the Inspector, of new water sources to be used during drilling that are not currently identified. There are 12 new water sources that may be used during the drilling program are denoted by the "PWS" symbol on the maps provided in Attachment A. In addition to the new water sources, there are eight (8) previously identified water sources (from



Type A Water Licence 2AM-MRY1325 / Amendment No.1) that may be used to support the drilling program, also denoted on the Attachment A maps. A table with existing and new water sources to support the drilling program are provided in Appendix C. The volume of water to be utilized at each new source is considered to be minimal. For rotary coring drill holes, the anticipated water use would be <10 m³, but typically <5 m³ per borehole. This is only for the boreholes denoted by the prefix, "BH16-Q". All of the ponds, lakes, and rivers identified can sustain such a very minor withdrawal of water. All other boreholes will use the sonic technique which typically drills without the use of water. Despite best planning, it should be noted that unforeseen geotechnical circumstances may preclude some changes in plans as the program proceeds. Baffinland will endeavor to inform the Inspector and land owner in such circumstances. Due to temperature restrictions tracking water usage volumes utilising water lines and flow meters will not be feasible. Therefore, Baffinland proposes to track water usage volumes by means of calibrated one cubic metre totes.

In accordance with Part F, Section 2, of the Type B Water Licence 2BE-MRY1421, this letter and attachments provides the notification for the drilling of 16 boreholes that will be closer than 31 metres from the ordinary high water mark of a water body. These locations are denoted by the prefix "BH16-B" on the maps provided in Attachment A. Locations of drill waste will be disposed of in natural depressions or sumps consistent with Part F Item 4 of Type B Water Licence. Daily environmental monitoring will be performed, including pre-, during and post- inspections. Drill water runoff and siltation mitigation measures consistent with Baffinland's Environmental Protection Plan BAF-PH1-830-P16-0008 r1 will be employed as required.

We trust that this information meets the various notifications required by the above referenced parties. Please to not hesitate to contact the undersigned, should you have any questions or comments.

Submitted by:

James Millard
Environmental Manager

Attach: A: Map Sheets 1 to 4, 2016 Geotechnical Investigations –Borehole Locations (four pages).

B: UTM Coordinates of Proposed Boreholes (two pages).

C: Locations/UTM Coordinates of New/Existing Water Sources (one page).

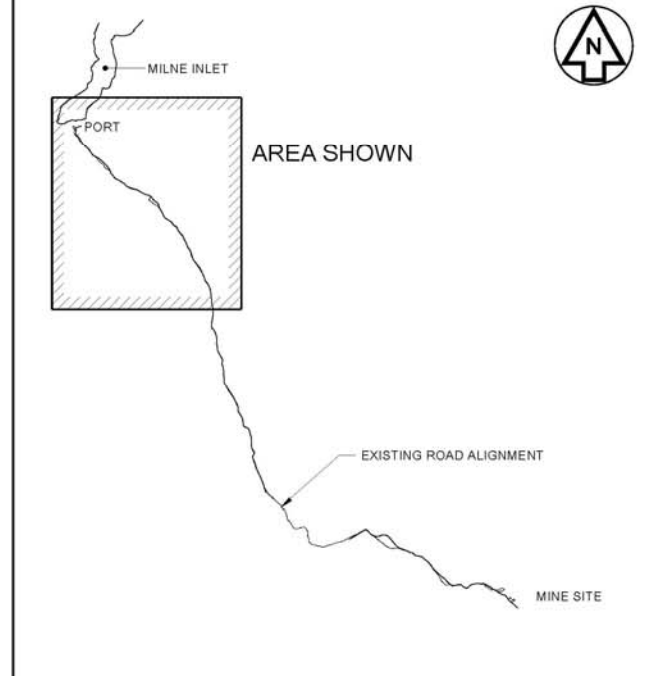
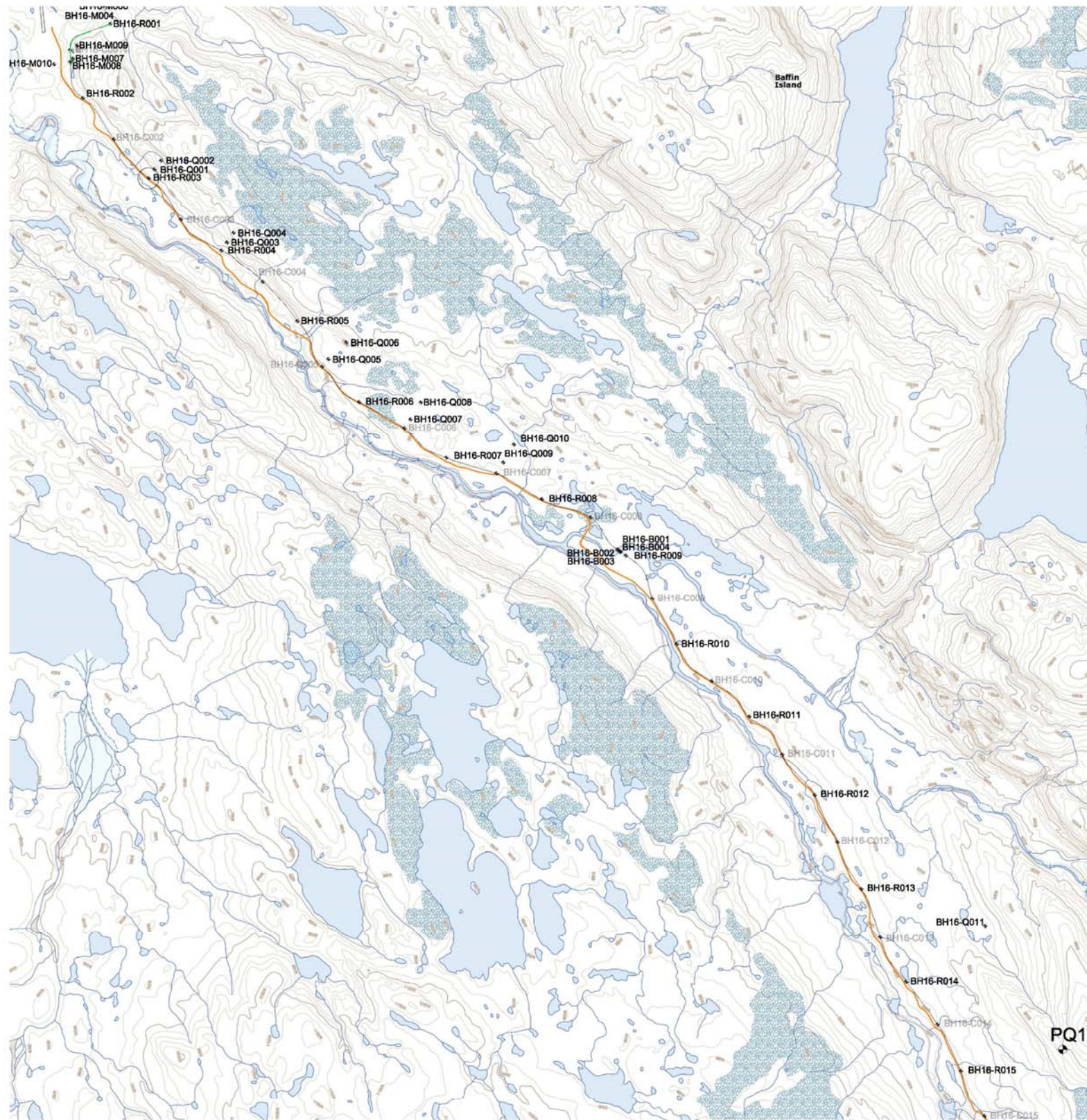
cc. Wayne McPhee, Todd Burlingame, Matt Weaver, William Bowden, Allan Knight (Baffinland), Sean Hinchberger and Warren Hoyle (Hatch)

Tracey McCaie , Scott Burgess, Erik Allain (INAC)

ATTACHMENT A

2016 Geotechnical Investigations - Borehole Locations

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NAME	
SIGNATURE	
ENG REG NUMBER	
REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

<small>THIS DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF [NAME OF CLIENT] (CLIENT) AND IS ISSUED PURSUANT TO THE RELEVANT AGREEMENT BETWEEN CLIENT AND HATCH LTD. ("HATCH"), UNLESS OTHERWISE AGREED IN WRITING WITH CLIENT OR SPECIFIED ON THIS DRAWING. HATCH DOES NOT ACCEPT AND DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY ARISING FROM ANY USE OF OR RELIANCE ON THIS DRAWING BY ANY THIRD PARTY OR ANY MODIFICATION OR MISUSE OF THIS DRAWING BY CLIENT, AND (B) THIS DRAWING IS CONFIDENTIAL AND ALL INTELLECTUAL PROPERTY RIGHTS EMBODIED OR REFERENCED IN THIS DRAWING REMAIN THE PROPERTY OF HATCH.</small>			
DESCRIPTION	BY	CHK'D	DATE
REVISIONS			

HATCH			
DRAFTSPERSON	N DONNELLY	NR	
DESIGNER	U KHAN	NR	
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	S HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS: Preliminary			

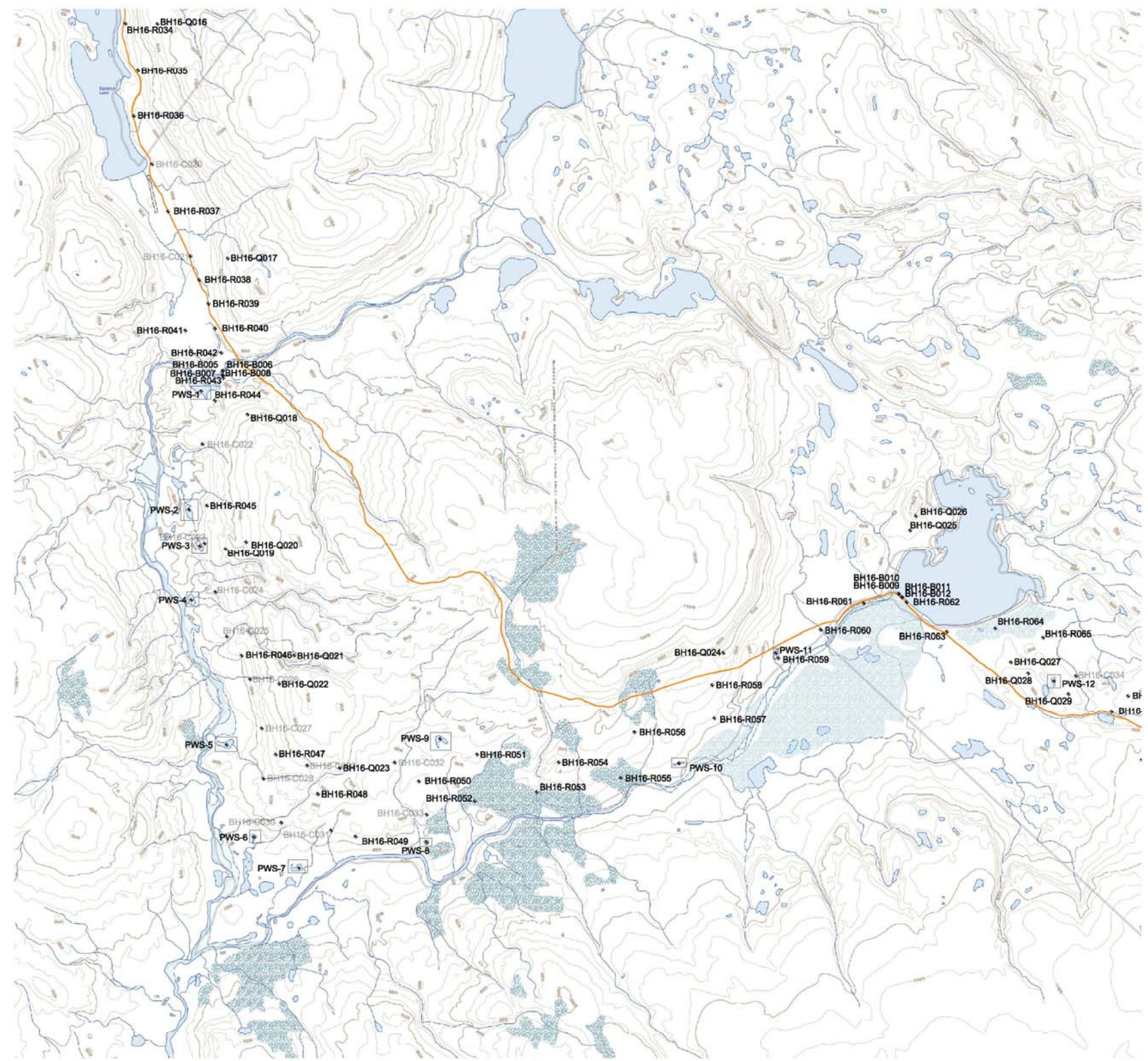
Baffinland

**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 1**

SCALE 1:50,000 OR AS NOTED DWG. No. H352034-GEOSKT-229-292-0001 REV A

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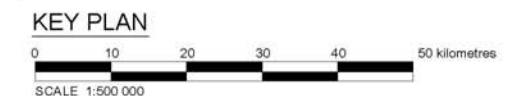
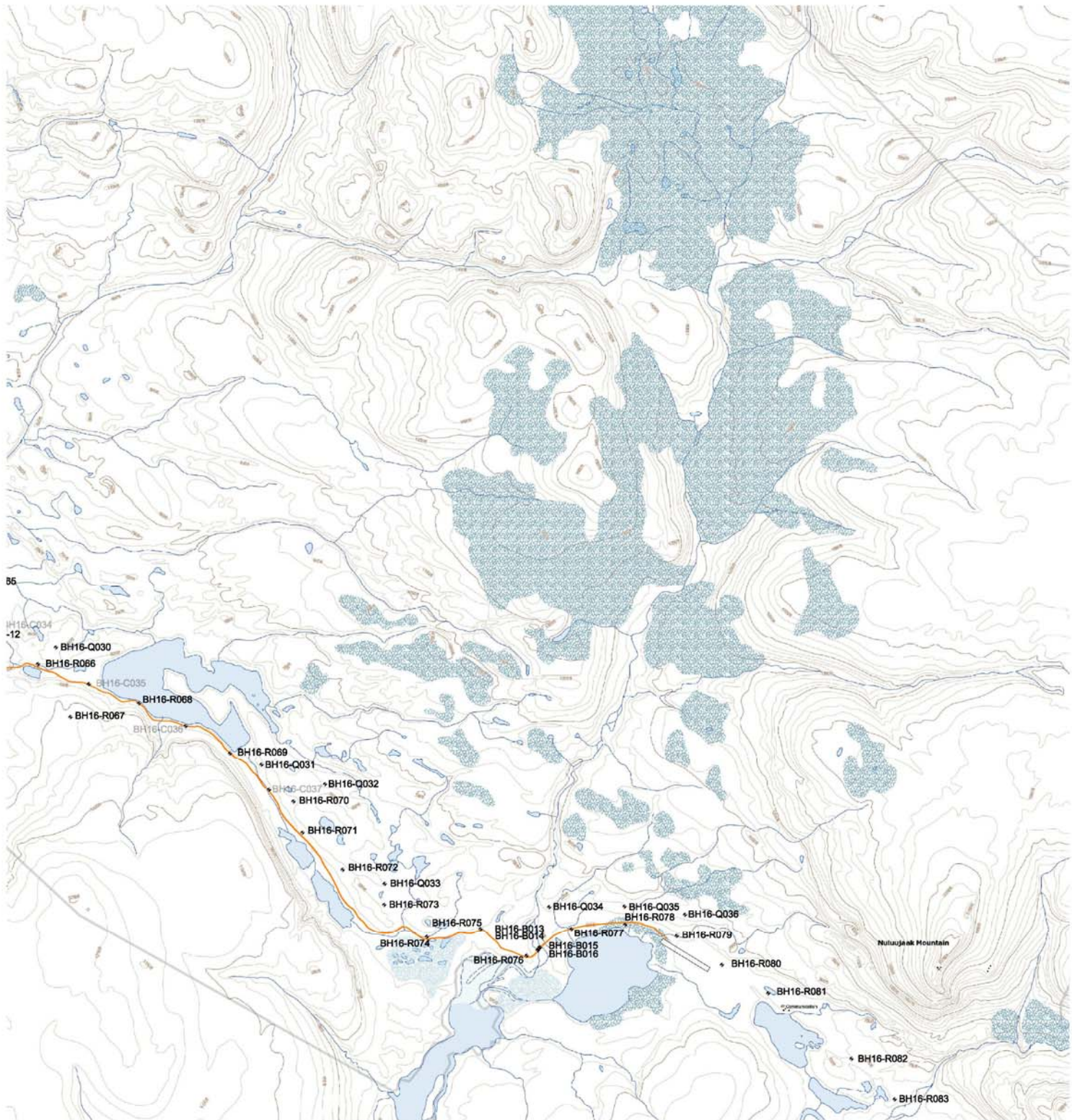
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SIGNATURE	
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REVISION DATE	
ORIGINAL DATE	No.
REG. PROFESSIONAL	

<small>THIS DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF [NAME OF CLIENT] (CLIENT) AND IS ISSUED PURSUANT TO THE RELEVANT AGREEMENT BETWEEN CLIENT AND HATCH LTD. ("HATCH"), UNLESS OTHERWISE AGREED IN WRITING WITH CLIENT OR SPECIFIED ON THIS DRAWING. HATCH DOES NOT ACCEPT AND DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY ARISING FROM ANY USE OF OR RELIANCE ON THIS DRAWING BY ANY THIRD PARTY OR ANY MODIFICATION OR MISUSE OF THIS DRAWING BY CLIENT, AND (B) THIS DRAWING IS CONFIDENTIAL AND ALL INTELLECTUAL PROPERTY RIGHTS EMBODIED OR REFERENCED IN THIS DRAWING REMAIN THE PROPERTY OF HATCH.</small>			
ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	N DONNELLY		NR
DESIGNER	U KHAN		NR
CHECKER			
DESIGN COORD.	W HOYLE		
RESP. ENG.			
LEAD DISC. ENG.	G HINCHBERGER		
ENG. MANAGER			
PROJ. MANAGER	J CLELAND		

2016 GEOTECHNICAL INVESTIGATIONS BOREHOLE LOCATIONS SHEET 3			
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No.	DESCRIPTION	BY	CHK'D	DATE

<p>HATCH</p>						
				DRAFTSPERSON	N DONNELLY	NR
				DESIGNER	U KHAN	NR
				CHECKER		
				DESIGN COORD.	W HOYLE	
				RESP. ENG.		
LEAD DISC. ENG.	G HINCHBERGER					
ENG. MANAGER						
PROJ. MANAGER	J CLELAND					
DRAWING APPROVAL STATUS:		Preliminary				

Baffinland

**2016 GEOTECHNICAL INVESTIGATIONS
BOREHOLE LOCATIONS
SHEET 4**

SCALE 1:50,000 OR AS NOTED

DWG. No. H352034-GEOSKT-229-292-0001

REV **A**

SHEET SIZE: D

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ATTACHMENT B

UTM Coordinates of Proposed Boreholes

Primary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-R001	504533.65	7975684.81
BH16-R002	504009.06	7974262.97
BH16-R003	505260.92	7972722.28
BH16-R004	506651.29	7971352.64
BH16-R005	508097.79	7969996.47
BH16-R006	509277.49	7968463.97
BH16-R007	510940.28	7967393.61
BH16-R008	512762.81	7966603.87
BH16-R009	514366.46	7965535.46
BH16-R010	515334.49	7963835.89
BH16-R011	516718.55	7962460.69
BH16-R012	517969.02	7960960.06
BH16-R013	518855.9	7959177.6
BH16-R014	519711.68	7957395.63
BH16-R015	520756.92	7955702.92
BH16-R016	521601.09	7953915.81
BH16-R017	521735.9	7952926.21
BH16-R018	521860.85	7951939.23
BH16-R019	521990.59	7950954.78
BH16-R020	521841.15	7949967.65
BH16-R021	521783.73	7948975.67
BH16-R022	522304.71	7948153.32
BH16-R023	522504.56	7947177.37
BH16-R024	522543.93	7946201.39
BH16-R025	522903.68	7945278.06
BH16-R026	523160.37	7944369.58
BH16-R027	523406.53	7942407.31
BH16-R028	524062.66	7940581.02
BH16-R029	525062.46	7938850.92
BH16-R030	525289.55	7937896.29
BH16-R031	525752.76	7937017.67
BH16-R032	525963.87	7936051.68
BH16-R033	526653.3	7935438.82
BH16-R034	527044.19	7933499.76
BH16-R035	527291.89	7932564.09
BH16-R036	527210.36	7931660.33
BH16-R037	527885.06	7929785.58
BH16-R038	528501.03	7928421.17
BH16-R039	528683.34	7927953.44
BH16-R040	528814.39	7927478.94
BH16-R041	528226.57	7927437.88
BH16-R042	528936.79	7926996.65
BH16-R043	528972.59	7926498.29
BH16-R044	528808.25	7926043.52
BH16-R045	528656.18	7923976.28
BH16-R046	529339.96	7921011.1
BH16-R047	530016.35	7919054.59
BH16-R048	530847.09	7918279.43
BH16-R049	531591.93	7917445.62
BH16-R050	532842.71	7918524.43
BH16-R051	533990.77	7919056.07
BH16-R052	533943.33	7918145
BH16-R053	535168.39	7918315.84
BH16-R054	535604.57	7918898.81
BH16-R055	536828.91	7918592.04
BH16-R056	537100.69	7919497.8
BH16-R057	538679.57	7919772.09
BH16-R058	538636.3	7920429.45
BH16-R059	539946.38	7920964.1
BH16-R060	540780.25	7921513.12
BH16-R061	541633.14	7922035.22
BH16-R062	542479.02	7922057.44
BH16-R063	543271.11	7921477.25
BH16-R064	544230.27	7921543.66
BH16-R065	545173.82	7921368.35
BH16-R066	546524.35	7919908.26
BH16-R067	547122.32	7918948
BH16-R068	548376.36	7919196.78
BH16-R069	550045.05	7918286.07
BH16-R070	551208.32	7917481.1
BH16-R071	551373.43	7916823.39
BH16-R072	552111.33	7916151.54
BH16-R073	552871.51	7915507.87
BH16-R074	553654.49	7914913.89
BH16-R075	554638.76	7915064.52
BH16-R076	555482.59	7914565.85
BH16-R077	556304.5	7915062
BH16-R078	557291.79	7915145.75
BH16-R079	558235.15	7914931.45
BH16-R080	559063.06	7914396.51
BH16-R081	559911.13	7913877.66
BH16-R082	561437.53	7912685.58
BH16-R083	562230.59	7911943.36

Quarry Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-Q001	505988.71	7972100.02
BH16-Q002	506112.86	7972325.31
BH16-Q003	506355.87	7972624.62
BH16-Q004	507905.91	7970594.07
BH16-Q005	508123.12	7970799.72
BH16-Q006	509055.72	7969191.69
BH16-Q007	509289.13	7969375.13
BH16-Q008	509453.64	7969695.98
BH16-Q009	513470.58	7967887.03
BH16-Q010	514002.36	7967792.36
BH16-Q011	521219.25	7958472.68
BH16-Q012	521895.67	7953450.04
BH16-Q013	523833.86	7942967.75
BH16-Q014	525375.41	7939165.29
BH16-Q015	527570.65	7933988.24
BH16-Q016	527675.74	7933495.21
BH16-Q017	529065.83	7928847.16
BH16-Q018	529457.29	7925768.18
BH16-Q019	529021.19	7923113.12
BH16-Q020	529427.82	7923256.16
BH16-Q021	530377.36	7921013.23
BH16-Q022	530082.08	7920456.14
BH16-Q023	531275.46	7918786.11
BH16-Q024	538858.25	7921067.43
BH16-Q025	542547.72	7923489.38
BH16-Q026	542661.31	7923771.47
BH16-Q027	544539.04	7920883.14
BH16-Q028	544880.34	7920662.25
BH16-Q029	545675.28	7920251.76
BH16-Q030	546853.2	7920214.34
BH16-Q031	550621.84	7918070.02
BH16-Q032	551786.15	7917710.96
BH16-Q033	552880.78	7915894.76
BH16-Q034	555893.82	7915467.29
BH16-Q035	557276.34	7915478.36
BH16-Q036	558385.54	7915327.98

Near Water Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-B001	514211.61	7965650.2
BH16-B002	514206.53	7965643.11
BH16-B003	514260.62	7965604.73
BH16-B004	514266.92	7965611.04
BH16-B005	528961.37	7926640.54
BH16-B006	528971.18	7926641.36
BH16-B007	528964.15	7926554.87
BH16-B008	528975.87	7926555.04
BH16-B009	542323.47	7922217.9
BH16-B010	542327.47	7922223.1
BH16-B011	542384.67	7922154.85
BH16-B012	542392.11	7922160.31
BH16-B013	555691.83	7914665.08
BH16-B014	555685.13	7914669.66
BH16-B015	555726.52	7914711.77
BH16-B016	555715.88	7914715.73

Milne Port Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-M001	503619	7976245
BH16-M002	503665	7976245
BH16-M003	503619	7976125
BH16-M004	503665	7976124
BH16-M005	503666	7976196
BH16-M006	503964	7976123
BH16-M007	503820	7975018
BH16-M008	503769	7974955
BH16-M009	503900	7975263
BH16-M010	503459	7974911
BH16-M011	502935	7976271

Secondary Geotechnical Borehole Summary

Borehole	Easting (m)	Northing (m)
BH16-C001	503762.89	7975181.63
BH16-C002	504597.3	7973462.97
BH16-C003	505876.35	7971948.16
BH16-C004	507436.66	7970743.14
BH16-C005	508573.06	7969141.44
BH16-C006	510143.73	7967964.92
BH16-C007	511894.83	7967094.41
BH16-C008	513694.92	7966256.21
BH16-C009	514870.4	7964719.61
BH16-C010	516002.07	7963128.69
BH16-C011	517349.06	7961736.69
BH16-C012	518403.5	7960062.49
BH16-C013	519218.35	7958250.54
BH16-C014	520308.6	7956593.61
BH16-C015	521208.1	7954831.33
BH16-C016	523331.67	7943399.06
BH16-C017	523555.54	7941441.48
BH16-C018	524592.88	7939733.37
BH16-C019	526962.92	7934487.65
BH16-C020	527569.36	7930717.9
BH16-C021	528326.19	7928888.05
BH16-C022	528567.22	7925181.52
BH16-C023	528607.62	7923228.29
BH16-C024	528821.7	7922261.95
BH16-C025	529047.04	7921389.24
BH16-C026	529506.56	7920543.85
BH16-C027	529736.19	7919570.88
BH16-C028	529771.81	7918574.99
BH16-C029	530636.02	7918838.61
BH16-C030	530125.13	7917718.53
BH16-C031	531106.36	7917566.15
BH16-C032	532362.92	7918894.63
BH16-C033	532995.66	7917875.7
BH16-C034	545824.59	7920610.1
BH16-C035	547457.94	7919550.2
BH16-C036	549231.75	7918780.8
BH16-C037	550763.02	7917609.93

ATTACHMENT C

Locations of Existing / New Sources

Existing Water Sources*

Location	Tote Road Chainage
Km32 Lake	At Water Intake - km 32
CV128 River	Km17
Katiktok Lake	Km52-58
BG50 River	Km62
CV217 River	Km80
Muriel Lake	km78 - 80
David Lake	Km 87 - 89
CV233 (Tom River)	Km97
Camp Lake	At Water Intake - km 100

*Type A Licence 2AM-MRY1325 - refer to Part E, Tables 2, 3, and 4.

Potential New Water Taking Sources*

Location	Easting (m)	Northing (m)
PWS-1	528541	7936231
PWS-2	528298	7923899
PWS-3	528518	7923176
PWS-4	528345	7922100
PWS-5	529042	7912244
PWS-6	529585	7917433
PWS-7	534071	7916820
PWS-8	532993	7917330
PWS-9	533261	7919362
PWS-10	537981	7918880
PWS-11	539897	7921060
PWS-12	545388	7920511

* Refer to Attachment A, Sheets 1 to 4

APPENDIX C.2
PHOTO JOURNAL



PHOTO 1 – Geotechnical Drilling Set Up, October 2016



PHOTO 2 - Geotechnical Drill Crew Staking out Drill Hole Locations, October 2016



PHOTO 3 – Pre-Drilling Site Conditions at BH16–CO17



PHOTO 4 – Post-Drilling Site Conditions at BH16-C017



PHOTO 5 – Pre-Drilling Conditions at BH16-B002



PHOTO 6 – Post-Drilling Conditions at BH16-B002