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April 30, 2020 | ◀△nc 30, 2020

# Baffinland Iron Mines Corporation Mary River Project

2019 QIKIQTANI INUIT ASSOCATION AND NUNAVUT WATER BOARD ANNUAL REPORT FOR EXPLORATION AND GEOTECHNICAL ACTIVITIES

# REV 0



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## TABLE 0: REPORT SUBMISSION SUMMARY

Year of Annual Report	2019
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# 2019 QIKIQTANI INUIT ASSOCATION (QIA) AND NUNAVUT WATER BOARD (NWB) ANNUAL REPORT FOR GEOTECHNICAL ACTIVITIES

#### **EXECUTIVE SUMMARY**

This report to the Qikiqtani Inuit Association (QIA) and the Nunavut Water Board (NWB) has been prepared to summarize the 2019 exploration and geotechnical 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) between the QIA and Baffinland for the Mary River Project (the Project). A separate annual report has been prepared for the QIA and NWB to summarize the 2019 Project activities and monitoring conducted under Baffinland's Type 'A' Water Licence 2AM-MRY1325 – Amendment No. 1 (Type 'A' Water Licence) and addresses the remaining annual reporting requirements set forth in the Commercial Lease. Additionally, a separate report has been prepared for the QIA and NWB to summarize the 2019 exploration activities conducted for the Eqe Bay Exploration Program within the scope of Baffinland's Type 'B' Water Licence 2BE-EQE1926 and Land Use Licence QL2-1910.

The scope of the Type 'B' Water Licence focuses on exploration and geotechnical drilling activities associated with the Project, 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 2019, activities carried out under the scope of the Type 'B' Water Licence involved continued geotechnical drilling programs and assessments to support ongoing design studies for future Project infrastructure, an exploration drilling program to increase mine pit model confidence at Deposit No. 1, further characterization of Deposit No. 3, and the continued exploration of prospects and Baffinland's mineral leases. No satellite camps were constructed or operated in 2019, with all personnel involved with the exploration and geotechnical activities being based out of the Mine Site and Milne Port accommodation camps.

Water withdrawn under the authorization of the Type 'B' Water Licence for the Project in 2019 was used solely to support exploration and geotechnical drilling operations. The daily water withdrawal limits stipulated in the Type 'B' Water Licence for the Project were not exceeded in 2019. In addition to tracking water use, environmental monitoring conducted in 2019 consisted of daily monitoring of drilling activities to ensure activities adhered to the practices outlined in the Project's Environmental Protection Plan (EPP). Reclamation works carried out under the Type 'B' Water Licence during 2019 involved the reclamation of borehole and geotechnical testing locations associated with the 2019 exploration and geotechnical activities.

As outlined in the 2020 Work Plan, exploration activities for 2020 have not yet been finalized however it is anticipated that activities at a minimum will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases, and will include exploration drilling



programs on Deposit Nos. 1 and 3. It is anticipated that Baffinland will continue to conduct geotechnical assessments, including drilling programs, during 2020 to support on-going engineering design studies for future Project infrastructure. As additional details for the 2020 exploration and geotechnical programs become available, this information will be provided to the NWB, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the QIA prior to the commencement of activities.

2019 QIA and NWB Annual Report for Exploration & Geotechnical Activities



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# RAPPORT ANNUEL 2019 DE QIKIQTANI INUIT ASSOCATION (QIA) ET DE L'OFFICE DES EAUX DU NUNAVUT (OEN) POUR LES ACTIVITÉS D'EXPLORATION ET DE GÉOTECHNIQUE

#### SOMMAIRE EXÉCUTIF

Ce rapport destiné à la Qikiqtani Inuit Association (QIA) et à l'Office des eaux du Nunavut (OEN) a été préparé pour résumer les activités d'exploration et de géotechnique menées en 2019 dans le cadre du permis d'utilisation des eaux de type 'B' 2BE-MRY1421 de la Baffinland Iron Mines Corporation (Baffinland) et du bail commercial n° Q13C301 (bail commercial) entre la QIA et Baffinland pour le projet Mary River (le projet). Un rapport annuel distinct a été préparé pour la QIA et l'OEN afin de résumer les activités et la surveillance du projet de 2019 menées en vertu du permis d'utilisation des eaux de Baffinland de type 'A' 2AM-MRY1325 – amendement no 1 (permis d'utilisation des eaux de type 'A') et de répondre aux exigences de rapport annuel restantes énoncées dans le bail commercial. De plus, un rapport séparé a été préparé pour la QIA et l'OEN afin de résumer les activités d'exploration menées en 2019 pour le programme d'exploration d'Eqe Bay dans le cadre du permis d'utilisation des eaux de Baffinland de type 'B' 2BE-EQE1926 et du permis d'utilisation des terres QL2-1910

Le champ d'application du permis d'utilisation des eaux de type 'B' se concentre sur les activités d'exploration et de forage géotechnique associées au projet, et comprend des dispositions et des conditions concernant l'utilisation de l'eau, la gestion des déchets, la construction et l'exploitation de camps satellites, les programmes d'exploration et de forage géotechnique, les mesures d'urgence en cas de déversement et la surveillance de l'environnement.

En 2019, les activités menées dans le cadre du permis d'utilisation des eaux de type 'B' ont consisté à poursuivre les programmes de forage et les évaluations géotechniques pour soutenir les études de conception en cours pour les futures infrastructures du projet, un programme de forage d'exploration pour accroître la confiance dans le modèle de puits de mine du gisement n° 1, une caractérisation plus poussée du gisement n° 3 et la poursuite de l'exploration des prospects et des baux miniers de Baffinland. Aucun camp satellite n'a été construit ou exploité en 2019, tout le personnel impliqué dans les activités d'exploration et de géotechnique étant basé dans les camps d'hébergement du site minier et du port de Milne.

L'eau prélevée en 2019 dans le cadre de l'autorisation du permis d'utilisation des eaux de type 'B' pour le projet a été utilisée uniquement pour soutenir les opérations d'exploration et de forage géotechnique. Les limites quotidiennes de prélèvement d'eau stipulées dans la licence de type 'B' pour le projet n'ont pas été dépassées en 2019. En plus du suivi de l'utilisation de l'eau, la surveillance environnementale effectuée en 2019 a consisté en un contrôle quotidien des activités de forage afin de s'assurer que les activités respectent les pratiques décrites dans le plan de protection de l'environnement (PPE) du projet. Les travaux de récupération réalisés dans le cadre du permis d'utilisation des eaux de type 'B' en 2019 ont impliqué la récupération de trous de forage et de sites d'essais géotechniques associés aux activités d'exploration et de géotechnique de 2019.



Comme indiqué dans le plan de travail 2020, les activités d'exploration pour 2020 n'ont pas encore été finalisées; toutefois, il est prévu que les activités comprennent au minimum la cartographie, l'échantillonnage et les levés géophysiques et géochimiques des prospects et des baux miniers de Baffinland, et qu'elles comprennent des programmes de forage d'exploration sur les gisements n° 1 et 3. Il est prévu que Baffinland continue à mener des évaluations géotechniques, y compris des programmes de forage, au cours de 2020 pour soutenir les études de conception technique en cours pour les futures infrastructures du projet. À mesure que des détails supplémentaires concernant les programmes d'exploration et de géotechnique pour 2020 seront disponibles, ces informations seront fournies à l'OEN, à Relations Couronne-Autochtones et Affaires du Nord Canada (RCAANC) et à la QIA avant le début des activités.



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## **ABBREVIATIONS**

Baffinland	Baffinland Iron Mines Corporation
CCME	Canadian Council of Ministers of the Environment
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
Commercial Lease	
CPT	
NTU	Nephelometric Turbidity Units
NWB	Nunavut Water Board
QIA	Qikiqtani Inuit Association
ROM	Run of Mine
the Project	Mary River Project
TSS	Total Suspended Solic
WSCC	Workers' Safety and Compensation Commission



#### 1 INTRODUCTION

#### 1.1 PURPOSE AND SCOPE

This report to the Qikiqtani Inuit Association (QIA) and the Nunavut Water Board (NWB) has been prepared to summarize the 2019 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) between the QIA and Baffinland for the Mary River Project (the Project). This report also addresses reporting requirements under the Crown Land Use permit for Steensby Port (N2019C0009). A separate annual report has been prepared for the QIA and NWB to summarize the 2019 Project activities and monitoring conducted under Baffinland's Type 'A' Water Licence 2AM-MRY1325 – Amendment No. 1 (Type 'A' Water Licence) 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. Additionally, a separate report has been prepared for the QIA and NWB to summarize the 2019 exploration activities conducted for the Eqe Bay Exploration Program within the scope of Baffinland's Type 'B' Water Licence 2BE-EQE1926 and Land Use Licence QL2-1910.

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 Project where activities in 2019 were undertaken. Key areas involved with exploration and geotechnical activities in 2019 included Milne Port, the Milne Inlet Tote Road (Tote Road), the Mary River Mine Site (Mine Site) and Steensby Port.

#### 1.2 REGULATORY FRAMEWORK

Although the key regulatory and legal documents that relate to this report are the Commercial Lease and the Type 'B' Water Licence, this report is presented in the context of other applicable regulatory authorizations and schedules for the Project. A list of the key regulatory permits, approvals and authorizations that allowed for the work to be completed at the Project in 2019 is presented in Table 1.1 below.



#### 2 EXPLORATION AND GEOTECHNICAL ACTIVITIES

#### 2.1 EXPLORATION ACTIVITIES AND DRILLING PROGRAMS

During 2019, exploration activities were based out of the Mine Site and consisted of day trips by helicopter to prospects and Baffinland's mineral leases to conduct mapping, sampling and geophysical and geochemical surveys. No new satellite camps were constructed and/or operated to support exploration activities in 2019. Although Steensby Port was used as a refuelling location for helicopters transporting exploration field crews in 2019, the site remained closed throughout the year and was not used to house personnel.

In addition to the exploration activities described above, an exploration diamond drilling program was conducted from June to September 2019 to increase mine pit model confidence at Deposit No. 1 and further characterize ore bodies at Deposit No. 3. The drilling program consisted of nineteen (19) boreholes; twelve (12) on Deposit No. 1 and seven (7) on Deposit No. 3. Equipment used in the diamond drilling program was transported between borehole sites using helicopters, and consisted of non-skid mounted drill rigs, drill rods and other supplies. Borehole locations associated with the 2019 exploration drilling program are presented in Table 2.1 and Figure 2.1.

Prior to commencing exploration drilling activities, a notification was submitted to the NWB, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the QIA to ensure compliance with the conditions set out in the Type 'B' Water Licence and Commercial Lease. Exploration activities and drilling program were consistent with the activities proposed in Section 4.1 of the 2019 Work Plan and the notifications submitted for the respective activities. Copies of the notifications are provided in Appendix C.

#### 2.2 GEOTECHNICAL ASSESSMENTS AND DRILLING PROGRAMS

To support on-going engineering design studies for planned future infrastructure at the Project, Baffinland continued to conduct geotechnical assessments in 2019, including three (3) geotechnical programs.

During February 2019, a land-based geotechnical drilling program was completed at Mary River Aerodrome. The purpose of this program was to investigate geotechnical conditions and install ground temperature cables to support engineering designs for potential upgrades and resurfacing of the Mary River aerodrome runway. The program consisted of three (3) boreholes, and are presented in Figure 2.1 and detailed in Table 2.1.

A marine on-ice geotechnical program, consisting of nineteen (19) cone penetration tests (CPT), was conducted at Milne Inlet during April 2019, to evaluate the geotechnical conditions for the construction of the freight dock at Milne Port. Table 2.1 and Figure 2.2 present the CPT locations associated with the 2019 marine on-ice geotechnical program at Milne Inlet.

Between April and May 2019, a land-based geotechnical drilling program was completed at Mary River adjacent to the Mine Haul Road near KM 106 & 107. The purpose of this program was to examine the geotechnical conditions and conduct a slope stability analysis in order to support construction of the Run



of Mine (ROM) stockpile and Sedimentation Pond at KM 107. The initial land-based geotechnical drilling program consisted of six (6) boreholes adjacent to the Mine Haul Road near KM 107 and four (4) boreholes adjacent to the Mine Haul Road near KM 106. The equipment utilized for the land-based geotechnical drilling program consisted of a tracked drill rig capable of using both sonic and rotary coring drilling techniques. Other supporting equipment included a tracked flatbed vehicle for hauling water and other supplies as well as a skid steer for moving drill rods and other equipment/supplies. After an initial preconstruction geotechnical investigation, the KM 107 area was determined to be an unsuitable location for the proposed infrastructure. An alternative location was identified at KM 106 location. Revisions to drill plan borehole locations for the land-based geotechnical drilling program were required as a direct result of the findings of the initial drilling, and are presented in Figure 2.1 and detailed in Table 2.1.

Two (2) additional programs were proposed in 2019 and notifications submitted, consisting of a proposed quarry material verification program and the installation of test piles at Milne Port. This work was deferred until 2020, and no drilling was completed in 2019.

To ensure compliance with the relevant conditions outlined in the Type 'B' Water Licence and Commercial Lease, Baffinland submitted notifications to the NWB, CIRNAC and the QIA prior to commencement of activities. Copies of these notifications are provided in Appendix C of this report.



# **3 MODIFICATIONS, INFRASTRUCTURE CHANGES AND CONSTRUCTION**

No modifications, infrastructure changes or construction were conducted in 2019 under the Type 'B' Water Licence or Commercial Lease to support exploration and/or geotechnical activities.



#### 4 WATER USE

#### 4.1 QUANTITIES OF FRESHWATER USED FOR DOMESTIC PURPOSES

During 2019, 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 2019.

#### 4.2 QUANTITIES OF FRESHWATER USED FOR DRILLING ACTIVITIES

During 2019, water was withdrawn under the authorization of the Type 'B' Water Licence for drilling purposes.

During the 2019 land-based geotechnical drilling program for ROM stockpile investigation and the aerodrome investigation, no water was withdrawn for the purposes of drilling. The requirement for no water during drilling is attributed to the fact that all of the geotechnical boreholes were performed using a sonic drilling technique which requires minimal volumes of water to perform. Under ice drilling at Milne Port did not require the use of freshwater.

During the 2019 exploration drilling program at Deposit No. 1 and 3, approximately 6,958 m<sup>3</sup> of water was used to support exploration drilling activities. This was greater than the volume estimated in the drilling notification, and attributed to additional boreholes completed for the program. For boreholes at Deposit No. 1, water was sourced from Camp Lake via water truck and nearby water source KM 108.5 sump via water pumps. Water requirements for the drilling program at Deposit Nos. 3 were supplied by pumping water from one (1) location along the Mary River; MRP-3.

All water sources used to support 2019 drilling activities were identified by Baffinland as potential water sources in the drilling notifications submitted to the NWB, CIRNAC and QIA (refer to Appendix C).

Locations of the water sources used for the 2019 drilling programs are provided in Table 4.1 and are presented in Figures 2.1 and 2.2. Daily and monthly water use volumes for drilling activities by water source are detailed in Table 4.2. There were no exceedances of the daily water use limit for drilling activities (250 m<sup>3</sup>), stipulated in the Type 'B' Water Licence in 2019.



#### **5 ENVIRONMENTAL MONITORING**

#### 5.1 ENVIRONMENTAL MONITORING FOR DRILLING/TESTING ACTIVITIES

Daily environmental monitoring, including the completion of pre, daily and post inspections, were performed at borehole and CPT locations by on-site Environment Department personnel. Protocols and mitigation measures consistent with the Project's Environmental Protection Plan (EPP; BAF-PH1-830-P16-0008) for the management of fuel, hazardous materials, and waste were employed during the 2019 drilling programs and associated activities. Copies of the environmental monitoring logs completed for the 2019 borehole and CPT locations are provided in Appendix E (refer to Table 5.1).

Areas that were drilled in 2019 were previously assessed for the presence of archaeological sites. To minimize the potential for disturbance of cultural heritage resources and prior to the commencement of drilling operations, identified archaeological sites near areas to be drilled in 2019 were staked off and their locations communicated to the appropriate drilling crews, as per the Project's Cultural Heritage Resource Protection Plan (BAF-PH1-830-P16-0006).

#### 5.2 2019 MARINE WATER QUALITY MONITORING PROGRAM – MILNE INLET

During April 2019, a marine under-ice water quality monitoring program was conducted in Milne Inlet during the execution of the marine on-ice geotechnical program involving cone penetration tests (CPTs). The objective of the water quality monitoring program was to monitor total suspended solids (TSS) and turbidity levels within the immediate vicinity of the geotechnical testing activities.

The water quality monitoring program consisted of collecting under-ice, discrete water samples within 12 hours before the commencement of geotechnical activities, and within 12 hours following the completion of activities at select CPT locations. Pre and post water samples were generally collected at a depth of approximately one (1) metre above the bottom of the water column using a Kemmerer water sampler. Water samples were collected as described in the Project's Surface Water Sampling Program — Quality Assurance and Quality Control Plan (BAF-PH1-830-P16-0001) and analyzed for trace metals (total) and general parameters, including turbidity and TSS. Monitoring results for the water quality monitoring program are presented in Table 5.2.

Due to the transient and intermittent nature of the on-ice geotechnical activities, the Canadian Council of Ministers of the Environment (CCME) TSS and turbidity guidelines for short-term exposure in marine environments (clear flow) were the applicable criteria utilized for TSS and turbidity results collected during the marine under-ice water quality monitoring program. In comparing the CCME TSS guidelines with the changes in TSS concentrations documented between pre and post water quality samples at CPT locations, changes in TSS levels did not exceed the CCME TSS guideline of a maximum increase of 25 mg/L TSS from background (pre-testing) levels. Similarly, in comparing the CCME turbidity guidelines with the changes in turbidity levels documented between pre and post water samples at CPT locations, changes in turbidity levels did not exceed the CCME turbidity guideline of a maximum increase of 8 Nephelometric Turbidity Units (NTUs) from background (pre-testing) levels. The TSS and turbidity results from the marine under-





ice water quality monitoring program indicate that any re-suspension of sediments caused by the CPT activities was negligible.



#### **6 WASTE MANAGEMENT**

Satellite camps were not operated to support exploration and geotechnical drilling activities in 2019. Personnel associated with exploration and geotechnical drilling activities were based out of the Mary River Mine Site and Milne Port camps, operated under the Type 'A' Water Licence. As a result, the sewage, greywater and solid waste generated by the 2019 exploration and geotechnical drilling activities was captured under the Project's Type 'A' Water Licence. The reader is referred to the 2019 QIA and NWB Annual Report for Operations for additional details on sewage, greywater and waste generated and managed under the Type 'A' Water Licence during 2019.

Small amounts of drilling wastes (i.e. cuttings) generated from 2019 drilling programs were deposited in boreholes and/or sumps, as well as captured by sedimentation and erosion control measures (e.g. silt fencing) near exploration borehole locations. Table 6.1 details the approximate quantities and locations of drilling wastes deposited during the 2019 drilling programs. Locations of the sump used to support the exploration drilling program at Deposit No. 1 are presented in Figure 2.1.



#### **7 REPORTED INCIDENTS**

#### 7.1 SPILLS

Under the Type 'B' Water Licence, there were no spills in 2019 that met or exceeded the reporting thresholds outlined in the Nunavut Spill Contingency Planning and Reporting Regulations. As a result, no spills were reported by Baffinland in 2019 under the Type 'B' Water Licence.

#### 7.2 HEALTH & SAFETY INCIDENTS

Under the Commercial Lease, no health & safety incidents were reported to the QIA and/or the Workers' Safety and Compensation Commission (WSCC) that pertained to the 2019 exploration and geotechnical activities.



#### 8 RECLAMATION, CLOSURE AND FINANCIAL SECURITY

#### 8.1 PROGRESSIVE AND FINAL RECLAMATION

New impacts from 2019 exploration and geotechnical activities were minimal and are summarized in Table 8.1.

Progressive and final reclamation works undertaken in 2019 are summarized in Table 8.2. As shown in Table 8.2, progressive and final reclamation works undertaken in 2018 solely consisted of reclaiming borehole and CPT locations associated with the 2018 exploration and geotechnical programs.

Following the completion of a borehole and/or CPT, as per Part I, Item 9 of the Type 'B' Water Licence, drilling equipment was removed and sites were restored to their natural condition. For exploration borehole locations, the borehole casing was cut off near ground surface. Anchoring rods used to secure the drill rig at the exploration borehole locations were left in place until the end of the field season, and were then cut off to near ground surface. For geotechnical borehole locations, all holes were backfilled using native material and reinstated to natural conditions. A routine inspection of 2019 boreholes will be completed during summer months of 2020.

To support exploration drilling activities at Deposit No. 1 and 3 in 2019, select supplies and a survival shelter were secured, winterized and left near borehole location MR3-19-256, and a survival shelter and pump shack were left at the MRP-3 water source location.

Available photographs of conditions before, during and after geotechnical and exploration drilling activities in 2019 are provided in Appendix D.

#### 8.2 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 8.3.



#### 9 PLANS, REPORTS AND STUDIES

#### 9.1 SUMMARY OF STUDIES REQUESTED BY THE BOARD

In 2019, studies under the Type 'B' Water Licence were not requested by the NWB.

#### 9.2 REVISIONS TO PLANS, REPORTS AND MANUALS

An annual review of the management plans developed under the Type 'B' Water Licence was completed in 2019. The current versions of the Exploration Spill Contingency Plan (BAF-PH1-830-P16-0037; Rev. 0; June 2014) and the Exploration Closure and Reclamation Plan (BAF-PH1-830-P16-0038; Rev. 1; July 2014) reflect current operations, protocols and procedures. The reader is referred to the 2019 QIA and NWB Annual Report for Operations for a complete list of the Project's current management and monitoring plans and the recent revisions undertaken during 2019 and early 2020.

#### 9.3 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 2019.

Fuel requirements for exploration activities in 2019 consisted of Jet-A1 fuel, for on-site helicopters transporting crews and equipment to prospects, mineral leases and borehole locations, and Arctic Diesel, for drill operations and support equipment (i.e. pick-up trucks). Jet-A1 fuel requirements for exploration activities were supplied using drummed Jet-A1 fuel stored in lined containment areas at the Mine Site and Steensby Port. Arctic Diesel requirements for exploration activities were supplied by the Mine Site and Milne Port bulk fuel storage facilities.

Fuel requirements for the 2019 geotechnical drilling programs consisted of Arctic Diesel supplied by the Mine Site and Milne Port bulk fuel storage facilities. The drill rig and supporting equipment (Nodwell flatdeck, skidsteer) were refueled using pick-up trucks equipped with double walled portable tanks (tidy tanks).

To safeguard impacts to freshwater bodies and mitigate fuel spills, fueling activities adhered to the protocols and mitigation measures (i.e. spill trays, spill kits) outlined in Baffinland's current Environmental Protection Plan and Exploration Spill Contingency Plan (BAF-PH1-830-P16-0037).

As of December 31, 2019, there were 1,004 drums (205 L) of fuel (624 Arctic Diesel and 380 Jet-A1) stored at Steensby Port, 775 drums (205 L) of fuel (427 Jet-A1 and 348 gasoline) at the Mine Site and 60 drums (205 L) of fuel (16 Jet-A1 and 44 gasoline) at Milne Port. No fuel was stored at the Mid-Rail camp in 2019. Drummed fuel at the Mine Site and Steensby Port are stored within lined secondary containment areas. End of year fuel inventories for the Mine Site and Milne Port bulk fuel storage facilities, operated under the Type 'A' Water Licence, are provided in the 2019 QIA and NWB Annual Report for Operations.



#### 9.4 INSPECTION AND COMPLIANCE REPORTS

#### 9.4.1 CIRNAC Inspections

During 2019, Baffinland did not receive any inspection and/or compliance reports from CIRNAC Water Resources Officers (the Inspector) outlining concerns pertaining to the scope of the Type 'B' Water Licence.

#### 9.4.2 QIA Inspections

During 2019, the QIA conducted several inspections and an annual audit at the Project. During the annual audit in August 2019, it was identified that the exploration boreholes at Deposit No. 3 had not been backfilled with drill cuttings. Boreholes were restored to natural conditions by cutting of the borehole casing to near grade surface and/or removing the casing, consistent with the Exploration Closure and Reclamation Plan (BAF-PH1-830-P16-0038). QIA also noted concerns regarding the management of drill cuttings near watercourses. To improve the management drill cuttings, Baffinland implemented the use of sand bags at borehole locations, where feasible, to increase sump capacity and the settling time of drill water in sumps as well as support silt fences downstream.

#### 9.5 SUMMARY OF ARTESIAN FLOWS

During the 2019 geotechnical and exploration drilling programs, artesian flows were not observed at any of the borehole locations.

#### 9.6 SUMMARY OF GEOCHEMICAL ANALYSIS OF DRILL CORES

As of April 30, 2020, geochemical analysis of the geotechnical drill cores collected during 2019 has not been completed and is not planned at this time.

As of April 30, 2020, geochemical analysis of the drill cores collected during the exploration drilling programs at Deposit No. 1 and 3 has not been completed and is currently under review.



#### **10 PUBLIC CONSULTATIONS**

Throughout 2019, Baffinland continued to consult with the North Baffin communities and organizations regarding; ongoing construction and operational activities at the Project, the 2019 shipping season, progress regarding employment from the North Baffin communities, environmental monitoring activities and results, exploration activities and future phases of the Project. Baffinland's senior management team continued to participate in these meetings.

The reader is referred to the 2019 QIA and NWB Annual Report for Operations for a complete list of consultations and meetings held with regulators, stakeholders and the public by Baffinland during 2019.



#### 11 2020 EXPLORATION AND GEOTECHNICAL ACTITIVIES

The 2020 Work Plan was prepared and provided by Baffinland to relevant parties on November 1, 2019 as required under Section 6.1 of the Commercial Lease and under Part J, Item 3 of the Type 'A' Water Licence, for the purposes of an Annual Security Review (ASR) for activities undertaken on an annual basis. The 2020 Work Plan described the planned development and operation of the Project in 2020, including planned exploration and geotechnical drilling activities.

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

Exploration activities for 2020 have not yet been finalized however it is anticipated that activities at a minimum will include mapping, sampling and geophysical and geochemical surveys of prospects and Baffinland's mineral leases and will include additional exploration drilling programs on Deposit No. 1, 2 and 3. Notification will be provided to the NWB, CIRNAC and the QIA prior to the commencement of exploration drilling activities.

Geotechnical activities, including drilling programs, will be conducted during 2020 to support on-going engineering design studies for future Project infrastructure. Baffinland will provide notification to the NWB, CIRNAC and the QIA prior to commencement of the activities.

Operation of the Steensby and Mid Rail camps to support exploration and geotechnical activities are not anticipated to be required during 2020.



# **TABLES**



Table 1.1: Current Approvals, Permits and Authorizations - 2019

Permit or Licence No.	Licence Name	Status Update for 2019	Expiry						
Nunavut Impact Review	lunavut Impact Review Board								
No. 005	Amended Project Certificate	All works and activities have been screened by the Nunavut Impact Review Board (NIRB) and have been considered in the Project Certificate amendments issued by the NIRB in May 2014 (ERP) and October 2018 (Production Increase). A NIRB Annual Report is submitted each year that summarizes the status of the Project relative to the conditions outlined in the Project Certificate.	N/A						
Nunavut Water Board									
2AM-MRY1325	Type 'A' Water Licence – Amendment No. 1	In good standing; no amendments were issued by the NWB in 2019.	10-Jun-25						
2BE-MRY1421	Type 'B' Water Licence	In good standing; no amendments were issued by the NWB in 2019.	16-Apr-21						
Qikiqtani Inuit Associatio	on .								
Q13C301	Inuit Owned Land Commercial Lease	Compliance with the lease is outlined in the 2019 QIA and NWB Annual Reports submitted by March 31 <sup>st</sup> of each year.	31-Dec-43						
-	Inuit Impact and Benefit Agreement (IIBA)	Compliance with the agreement is outlined in the Annual IIBA Implementation Report submitted by March 31 <sup>st</sup> of each year.	N/A						
Crown Land Use Permits	and Quarry Permits								
47H16-1-2	Foreshore Area for Milne Port Ore Dock Lease	In good standing. Amendment to the lease currently under review.	30-Jun-35						
N2019Q0011	Tote Road and Borrow Area Land Use Permit	New lease issued in 2019, replaces prior permit N2014Q0016.	29-Jun-24						
N2019C0009	Steensby Land Use Permit	New lease issued in 2019, replaces prior permit N2014C0013.	29-Jun-24						
N2019J0010	Bruce Head Land Use Permit	New lease issued in 2019, replaces prior permit N2014J0011.	29-Jun-24						
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. A monitoring report for the water crossings was submitted to DFO on December 31, 2019.							
14-HCAA-00525	Fisheries Authorization – Milne Ore Dock	A monitoring report for the ore dock was submitted to DFO on December 31, 2019.	31-Dec-20						
NU-06-0084	Fisheries Authorization – Tote Road	-	N/A						
18-HCAA-00160	Fisheries Authorization – Freight Dock	-	N/A						
Various Letter of Advice	Project crossings along Tote Road and at quarries, culvert extensions and replacements.	-	N/A						
	igable Waters Protection Act (Transp	oort 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						
Licence under the Explos	ives Act								
F76068/E	Division 1 Factor Licence	Held by explosives contractor for the Project.	N/A						



Table 2.1: Exploration and Geotechnical Activities and Drilling Summary - 2019

Property Section	Description of Activity	Description of Drilling Plan	ID	Location (UTM; NAD 83)	Status⁵	Results
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions and install ground temperature cables for potential runway resurfacing.	BH19-01	17 W 558544 7914472	Completed February 25, 2019	Geotechnical conditions characterized & ground temperature cables installed.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions and install ground temperature cables for potential runway resurfacing.	BH19-02	17 W 559001 7914131	Completed February 26, 2019	Geotechnical conditions characterized & ground temperature cables installed.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions and install ground temperature cables for potential runway resurfacing.	BH19-06	17 W 558561 7914492	Completed February 25, 2019	Geotechnical conditions characterized & ground temperature cables installed.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-01	17 W 503987 7976698	Completed April 15, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-02	17 W 503987 7976698	Completed April 16, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-03	17 W 503987 7976762	Completed April 17, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-03B	17 W 503988 7976761	Completed April 17, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-03C	17 W 503989 7976762	Completed April 18, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-04	17 W 503953 7976702	Completed April 19, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-05	17 W 503945 7977110	Completed April 19, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at locations for future freight dock infrastructure in Milne Inlet.	BH19-CPT19-06	17 W 503994 7977110	Completed April 21, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-07	17 W 503985 7977110	Completed April 21, 2019	Geotechnical conditions characterized.

<sup>1</sup>Crown Lands - Foreshore - Milne Inlet.

<sup>&</sup>lt;sup>2</sup>Inuit-Owned Lands - Parcel PI-19.

<sup>&</sup>lt;sup>3</sup>Inuit-Owned Lands - Parcel PI-16.

<sup>&</sup>lt;sup>4</sup>Inuit-Owned Lands - Parcel PI-17.

<sup>&</sup>lt;sup>5</sup>In cases where a site's completion date is not available, the date of the site's final cleanup is provided.



Table 2.1: Exploration and Geotechnical Activities and Drilling Summary - 2019

Property Section	Description of Activity	Description of Drilling Plan	ID	Location (UTM; NAD 83)	Status⁵	Results
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-08	17 W 503995 7977120	Completed April 22, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-09	17 W 504005 7977110	Completed April 22, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-10	17 W 503995 7977100	Completed April 22, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-11	17 W 503955 7977110	Completed April 23, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-12	17 W 503945 7977100	Completed April 23, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-13	17 W 503935 7977109	Completed April 23, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-14	17 W 503945 7977120	Completed April 24, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-15	17 W 503944 7977085	Completed April 24, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-16	17 W 503920 7977110	Completed April 24, 2019	Geotechnical conditions characterized.
Milne Port <sup>1</sup>	Marine On-Ice Geotechnical (Cone Penetration Testing)	Characterize geotechnical conditions at potential locations for dock infrastructure in Milne Inlet.	BH19-CPT19-17	17 W 503945 7977135	Completed April 25, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for ore management facilities.	KM107-DH19-01	17 W 564115 7913113	Completed April 11, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for ore management facilities.	KM107-DH19-02	17 W 564219 7913502	Completed April 13, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential location for new ore management infrastructure.	KM107-DH19-03	17 W 564385 7913556	Completed April 15, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential location for new ore management infrastructure.	KM107-DH19-04	17 W 564351 7913721	Completed April 16, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM107-DH19-05	17 W 563874 7913618	Completed April 8, 2019	Geotechnical conditions characterized.

<sup>1</sup>Crown Lands - Foreshore - Milne Inlet.

<sup>&</sup>lt;sup>2</sup>Inuit-Owned Lands - Parcel PI-19.

<sup>&</sup>lt;sup>3</sup>Inuit-Owned Lands - Parcel PI-16.

<sup>&</sup>lt;sup>4</sup>Inuit-Owned Lands - Parcel PI-17.

 $<sup>^{5}</sup>$ In cases where a site's completion date is not available, the date of the site's final cleanup is provided.



Table 2.1: Exploration and Geotechnical Activities and Drilling Summary - 2019

Property Section	Description of Activity	Description of Drilling Plan	ID	Location (UTM; NAD 83)	Status <sup>5</sup>	Results
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM107-DH19-06	17 W 564307 7913350	Completed April 12, 2019	Geotechnical conditions characterized.
Tote Road <sup>3</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM106-DH19-01	17 W 563473 7913064	Completed May 16, 2019	Geotechnical conditions characterized.
Tote Road <sup>3</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM106-DH19-02	17 W 563418 7913168	Completed May 16, 2019	Geotechnical conditions characterized.
Tote Road <sup>3</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM106-DH19-03	17 W 563545 7913193	Completed May 16, 2019	Geotechnical conditions characterized.
Tote Road <sup>3</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for railway bridge abutments.	KM106-DH19-04	17 W 563618 7913306	No drilling occurred at this proposed location	No drilling occurred at this proposed location
Mine Site <sup>4</sup>	Land Geotechnical Drilling	Characterize geotechnical conditions at potential locations for new Mine Site Bulk Fuel Facility.	KM106-DH19-05	17 W 563505 7913113	Completed May 16, 2019	Geotechnical conditions characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-18-244	17 W 567244 7913520	Completed June 25, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-251	17 W 563819 7915498	Completed June 26, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-255	17 W 567296 7913560	Completed July 5, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-254	17 W 563731 7915265	Completed July 7, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-257	17 W 563948 7915652	Completed July 12, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-253	17 W 563787 7915383	Completed July 16, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-258	17 W 564020 7915718	Completed July 18, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-256	17 W 567185 7913540	Completed July 19, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-259	17 W 564020 7915718	Completed July 25, 2019	Deposit No. 1 ore body further characterized.

<sup>1</sup>Crown Lands - Foreshore - Milne Inlet.

<sup>&</sup>lt;sup>2</sup>Inuit-Owned Lands - Parcel PI-19.

<sup>&</sup>lt;sup>3</sup>Inuit-Owned Lands - Parcel PI-16.

<sup>&</sup>lt;sup>4</sup>Inuit-Owned Lands - Parcel PI-17.

 $<sup>^{5}</sup>$ In cases where a site's completion date is not available, the date of the site's final cleanup is provided.



# Table 2.1: Exploration and Geotechnical Activities and Drilling Summary - 2019

Property Section	Description of Activity	Description of Drilling Plan	ID	Location (UTM; NAD 83)	Status⁵	Results
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-261	17 W 567406 7913604	Completed July 26, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-260	17 W 563811 7915444	Completed July 31, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-263	17 W 567532 7913625	Completed July 31, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-262	17 W 564101 7915846	Completed August 1, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-264	17 W 564188 7916001	Completed August 9, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-265	17 W 567191 7913508	Completed August 14, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-266	17 W 563182 7914313	Completed August 16, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-268	17 W 563097 7914174	Completed August 22, 2019	Deposit No. 1 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 3 ore body.	MR3-19-267	17 W 567306 7913517	Completed August 22, 2019	Deposit No. 3 ore body further characterized.
Mine Site <sup>4</sup>	Exploration Diamond Drilling	Further characterize Deposit No. 1 ore body.	MR1-19-269	17 W 562980 7913992	Completed August 30, 2019	Deposit No. 1 ore body further characterized.

#### Notes:

<sup>&</sup>lt;sup>1</sup>Crown Lands - Foreshore - Milne Inlet.

<sup>&</sup>lt;sup>2</sup>Inuit-Owned Lands - Parcel PI-19.

<sup>&</sup>lt;sup>3</sup>Inuit-Owned Lands - Parcel PI-16.

<sup>&</sup>lt;sup>4</sup>Inuit-Owned Lands - Parcel PI-17.

 $<sup>^{5}</sup>$ In cases where a site's completion date is not available, the date of the site's final cleanup is provided.



Table 4.1: Annual Volumes of Water Used for Drilling Activities on Inuit-Owned and Crown Lands by Source - 2019

Property Section	Water Source ID	Water Source Location (UTM; NAD 83)	Annual Volume Used (m³)a	Percent of Total Annual Volume Used (%)
Mine Site	Km 108 Sump	17 W 564006 7915693	3,681	52.90%
Mine Site	Camp Lake	17 W 557776 7914723	696	10.00%
Mine Site	MRP-3 (Mary River)	17 W 567769 7912761	2,581	37.10%
		TOTAL	6,958	100.00%

<sup>&</sup>lt;sup>a</sup>Refer to Table 4.2 for 2019 daily and monthly water use volumes by water source.



Table 4.2: Daily and Monthly Volumes of Water Used for Drilling Activities on Inuit-Owned and Crown Lands by Source - 2019

Devi	Jui	ne	Jul	ly		August			
Day	MRP-3 (Mary River)	KM 108.5 Sump	MRP-3 (Mary River)	KM 108.5 Sump	MRP-3 (Mary River)	KM 108.5 Sump	Camp Lake		
1	-	-	54	114	-	74	-		
2	-	-	54	114	-	22	-		
3	-	-	54	94	-	6	-		
4	-	-	54	86	11	52	-		
5	-	-	27	114	54	61	-		
6	-	-	-	86	57	64	-		
7	-	-	61	57	63	59	-		
8	-	-	54	29	65	61	-		
9	-	-	54	53	31	19	-		
10	-	-	54	75	67	-	-		
11	-	-	27	57	74	-	29		
12	-	-	54	43	85	-	57		
13	-	-	54	57	52	-	29		
14	-	-	54	86	27	-	57		
15	-	-	54	114	-	-	43		
16	-	-	54	122	27	-	24		
17	20	-	54	67	45	-	29		
18	13	13	27	57	51	-	69		
19	24	57	14	29	54	-	67		
20	17	59	-	114	48	-	81		
21	18	57	47	116	51	-	45		
22	21	40	55	115	19	-	15		
23	42	48	30	136	-	-	-		
24	81	59	46	75	-	-	-		
25	62	58	52	57	-	-	-		
26	-	-	-	80	-	-	32		
27	-	-	34	118	-	-	27		
28	-	29	53	113	-	-	37		
29	54	86	52	134	-	-	57		
30	54	114	41	73	-	-	-		
31	-	-	27	61	-	-	-		
TOTAL	405	620	1,295	2,644	881	417	696		
MONTHLY TOTAL	1,0	25	3,9	39	1,994				

All volumes in cubic metres (m<sup>3</sup>).

No exceedances of the daily drilling water use limit (250 m<sup>3</sup>/day) occurred in 2019.



Table 5.1: Exploration and Geotechnical Environmental Monitoring Logs - 2019

Property Section	ID	Location (UTM; NAD 83)	Environmental Monitoring Logs (Pre, Daily, Post)
Mine Site <sup>4</sup>	BH19-01	17 W 558544 7914472	BH19-01 - Appendix E.1.1
Mine Site⁴	BH19-02	17 W 559001 7914131	BH19-02 - Appendix E.1.2
Mine Site <sup>4</sup>	BH19-06	17 W 558561 7914492	BH19-06 - Appendix E.1.3
Milne Port <sup>1</sup>	BH19-CPT19-01	17 W 503987 7976698	BH19-CPT19-01 - Appendix E.1.4
Milne Port <sup>1</sup>	BH19-CPT19-02	17 W 503987 7976698	BH19-CPT19-02 - Appendix E.1.5
Milne Port <sup>1</sup>	BH19-CPT19-03	17 W 503987 7976762	BH19-CPT19-03 - Appendix E.1.6
Milne Port <sup>1</sup>	BH19-CPT19-03B	17 W 503988 7976761	BH19-CPT19-03B - Appendix E.1.7
Milne Port <sup>1</sup>	BH19-CPT19-03C	17 W 503989 7976762	BH19-CPT19-03C - Appendix E.1.8
Milne Port <sup>1</sup>	BH19-CPT19-04	17 W 503953 7976702	BH19-CPT19-04 - Appendix E.1.9
Milne Port <sup>1</sup>	BH19-CPT19-05	17 W 503945 7977110	BH19-CPT19-05 - Appendix E.1.10
Milne Port <sup>1</sup>	BH19-CPT19-06	17 W 503994 7977110	BH19-CPT19-06 - Appendix E.1.11
Milne Port <sup>1</sup>	BH19-CPT19-07	17 W 503985 7977110	BH19-CPT19-07 - Appendix E.1.12
Milne Port <sup>1</sup>	BH19-CPT19-08	17 W 503995 7977120	BH19-CPT19-08 - Appendix E.1.13
Milne Port <sup>1</sup>	BH19-CPT19-09	17 W 504005 7977110	BH19-CPT19-09 - Appendix E.1.14
Milne Port <sup>1</sup>	BH19-CPT19-10	17 W 503995 7977100	BH19-CPT19-10 - Appendix E.1.15
Milne Port <sup>1</sup>	BH19-CPT19-11	17 W 503955 7977110	BH19-CPT19-11 - Appendix E.1.16
Milne Port <sup>1</sup>	BH19-CPT19-12	17 W 503945 7977100	BH19-CPT19-12 - Appendix E.1.17
Milne Port <sup>1</sup>	BH19-CPT19-13	17 W 503935 7977109	BH19-CPT19-13- Appendix E.1.18
Milne Port <sup>1</sup>	BH19-CPT19-14	17 W 503945 7977120	BH19-CPT19-14 - Appendix E.1.19
Milne Port <sup>1</sup>	BH19-CPT19-15	17 W 503944 7977085	BH19-CPT19-15 - Appendix E.1.20
Milne Port <sup>1</sup>	BH19-CPT19-16	17 W 503920 7977110	BH19-CPT19-16- Appendix E.1.21
Milne Port <sup>1</sup>	BH19-CPT19-17	17 W 503945 7977135	BH19-CPT19-17 - Appendix E.1.22
Mine Site⁴	KM107-DH19-01	17 W 564115 7913113	KM107-DH19-01 - Appendix E.1.23
Mine Site <sup>4</sup>	KM107-DH19-02	17 W 564219 7913502	KM107-DH19-02 - Appendix E.1.24
Mine Site⁴	KM107-DH19-03	17 W 564385 7913556	KM107-DH19-03 - Appendix E.1.25
Mine Site <sup>4</sup>	KM107-DH19-04	17 W 564351 7913721	KM107-DH19-04 - Appendix E.1.26
Mine Site <sup>4</sup>	KM107-DH19-05	17 W 563874 7913618	KM107-DH19-05 - Appendix E.1.27
Mine Site <sup>4</sup>	KM107-DH19-06	17 W 564307 7913350	KM107-DH19-06 - Appendix E.1.28
Mine Site <sup>4</sup>	KM106-DH19-01	17 W 563473 7913064	KM106-DH19-01 - Appendix E.1.29
Mine Site <sup>4</sup>	KM106-DH19-02	17 W 563418 7913168	KM106-DH19-02 - Appendix E.1.30
Mine Site <sup>4</sup>	KM106-DH19-03	17 W 563545 7913193	KM106-DH19-03 - Appendix E.1.31
Mine Site <sup>4</sup>	KM106-DH19-04	17 W 563618 7913306	KM106-DH19-04- Appendix E.1.32
Mine Site <sup>4</sup>	KM106-DH19-05	17 W 563505 7913113	KM106-DH19-05 - Appendix E.1.33
Mine Site <sup>4</sup>	MR3-18-244	17 W 567244 7913520	MR3-18-244 - Appendix E.2.1
Mine Site <sup>4</sup>	MR1-19-251	17 W 563819 7915498	MR1-19-251 - Appendix E.2.2
Mine Site <sup>4</sup>	MR3-19-255	17 W 567296 7913560	MR3-19-255 - Appendix E.2.3
Mine Site <sup>4</sup>	MR1-19-254	17 W 563731 7915265	MR1-19-254 - Appendix E.2.4
Mine Site <sup>4</sup>	MR1-19-257	17 W 563948 7915652	MR1-19-257- Appendix E.2.5
Mine Site <sup>4</sup>	MR1-19-253	17 W 563787 7915383	MR1-19-253 - Appendix E.2.6
Mine Site <sup>4</sup>	MR1-19-258	17 W 564020 7915718	MR1-19-258 - Appendix E.2.7
Mine Site⁴	MR3-19-256	17 W 567185 7913540	MR3-19-256 - Appendix E.2.8
Mine Site⁴	MR1-19-259	17 W 564020 7915718	MR1-19-259 - Appendix E.2.9
Mine Site <sup>4</sup>	MR3-19-261	17 W 567406 7913604	MR3-19-261 - Appendix E.2.10
Mine Site <sup>4</sup>	MR1-19-260	17 W 563811 7915444	MR1-19-260 - Appendix E.2.11
Mine Site <sup>4</sup>	MR3-19-263	17 W 567532 7913625	MR3-19-263 - Appendix E.2.12
Mine Site <sup>4</sup>	MR1-19-262	17 W 564101 7915846	MR1-19-262 - Appendix E.2.13
Mine Site <sup>4</sup>	MR1-19-264	17 W 564188 7916001	MR1-19-264 - Appendix E.2.14
Mine Site <sup>4</sup>	MR3-19-265	17 W 567191 7913508	MR3-19-265- Appendix E.2.15
Mine Site <sup>4</sup>	MR1-19-266	17 W 563182 7914313	MR1-19-266 - Appendix E.2.16
Mine Site <sup>4</sup>	MR1-19-268	17 W 563097 7914174	MR1-19-268 - Appendix E.2.17
Mine Site <sup>4</sup>	MR3-19-267	17 W 567306 7913517	MR3-19-267- Appendix E.2.18
Mine Site <sup>4</sup>	MR1-19-269	17 W 562980 7913992	MR1-19-269 - Appendix E.2.19

<sup>1</sup>Crown Lands - Foreshore - Milne Inlet.

<sup>2</sup>Inuit-Owned Lands - Parcel PI-19.

<sup>3</sup>Inuit-Owned Lands - Parcel PI-16.

<sup>4</sup>Inuit-Owned Lands - Parcel PI-17.



Table 5.2: Marine Water Quality Monitoring Results - Milne Inlet - 2019

	Drill Hole/CPT ID		BH19-C	PT19-01		BH19	9-CPT19-02			BH19-CPT19-03A		BH19-CPT19-04			
	Da	te	4/15/2019	4/15/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/17/2019	4/17/2019	4/18/2019	4/19/2019	4/19/2019	4/19/2019	
	Tin	ne	16:15	20:10	13:16	17:05	13:16	16:20	9:30	14:30	17:50	9:36	13:15	13:15	
	Samp	le ID	BH19-CPT19-01-A	BH19-CPT19-01-B	BH19-CPT19-02-A	BH19-CPT19-02-B	BH19-CPT19-02-A01	BH19-CPT19-02-B04	BH19-CPT19-03A	BH19-CPT19-03B	BH19-CPT19-03-B	BH19-CPT19-04-A	BH19-CPT19-04-B	BH19-CPT19-04-B01	
	ALS Labo	ratory ID	L2258894-1	L2258894-2	L2259287-1	L2259287-2	L2259287-3	L2259287-4	L2260218-1	L2260218-2	L2260699-1	L2260707-1	L2260707-2	L2260707-3	
	Sample	е Туре	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Duplicate	Equipment Blank	Pre-Drilling	Post-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Duplicate	
LABORATORY RESULTS															
General Parameters	Unit	MDL													
рН	pH Units	0.1	7.89	7.97	7.69	8.05	8.01	6.08	7.74	7.78	7.8	7.82	7.82	7.83	
Total Suspended Solids (TSS)	mg/L	2	<2.0	<2.0	16	2	20.4	4.4	10.4	12.8	14.8	2.8	10.8	12.4	
Total Dissolved Solids (TDS)	mg/L	20	33400	30600	32700	32300	32800	72	33300	30500	32200	32300	32400	32900	
Turbidity	NTU	0.1	0.49	0.69	0.27	0.15	0.35	0.17	0.27	0.17	0.12	0.35	0.4	0.42	
Total Metals															
Aluminum (AI)-Total	mg/L	0.005		<0.50	<0.50	<0.50	<0.50	<0.0050	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Antimony (Sb)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Arsenic (As)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Barium (Ba)-Total	mg/L	0.0001	0.01	<0.010	<0.010	<0.010	<0.010	0.00029	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Beryllium (Be)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Bismuth (Bi)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Boron (B)-Total	mg/L	0.01	4.1	4.1	3.9	4.1	4.1	<0.010	3.7	4.2	4	4	4.1	4.1	
Cadmium (Cd)-Total	mg/L	0.000005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.000050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Calcium (Ca)-Total	mg/L	0.05	379	377	368	371	372	0.518	372	401	382	382	388	386	
Cesium (Cs)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Chromium (Cr)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Cobalt (Co)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Copper (Cu)-Total	mg/L	0.001	<0.10	<0.10	<0.10	<0.10	<0.10	<0.0010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Iron (Fe)-Total	mg/L	0.01	<1.0	<1.0	<1.0	<1.0	<1.0	<0.010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Lead (Pb)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Lithium (Li)-Total	mg/L	0.001	0.16	0.15	0.14	0.15	0.15	<0.0010	0.12	0.16	0.12	0.12	0.14	0.13	
Magnesium (Mg)-Total	mg/L	0.005	1130	1140	1070	1100	1100	1.56	1120	1170	1230	1250	1220	1250	
Manganese (Mn)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Mercury (Hg)-Total	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.00010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Molybdenum (Mo)-Total	mg/L	0.00005	0.0101	0.0101	0.0099	0.0102	0.0095	<0.000050	0.009	0.0108	0.0104	0.0107	0.0106	0.0106	
Nickel (Ni)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Phosphorus (P)-Total	mg/L	0.05	<5.0	<5.0	<5.0	<5.0	<5.0	<0.050	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Potassium (K)-Total	mg/L	0.05	367	380	351	366	362	0.486	387	380	368	371	363	368	
Rubidium (Rb)-Total	mg/L	0.0002	0.103	0.107	0.103	0.1	0.101	<0.00020	0.098	0.109	0.1	0.107	0.106	0.107	
Selenium (Se)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Silicon (Si)-Total	mg/L	0.1	<10	<10	<10	<10	<10	<0.10	<10	<10	<10	<10	<10	<10	
Silver (Ag)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Sodium (Na)-Total	mg/L	0.05	9500	9570	8890	9100	9240	13.2	9410	9710	10300	10700	10500	10900	
Strontium (Sr)-Total	mg/L	0.001	6.97	6.84	6.75	6.85	6.83	0.0101	6.92	7.55	7.28	7.17	7.15	7.08	
Sulfur (S)-Total	mg/L	0.5	899	895	859	863	873	1.24	862	894	902	927	899	933	
Tellurium (Te)-Total	mg/L	0.0002	<0.020	<0.020	<0.020	<0.020	<0.020	<0.00020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Thallium (TI)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Thorium (Th)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Tin (Sn)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Titanium (Ti)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
Tungsten (W)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Uranium (U)-Total	mg/L	0.00001	0.0029	0.0029	0.0027	0.0028	0.0028	<0.00010	0.0027	0.0029	0.0029	0.0029	0.0029	0.003	
Vanadium (V)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Zinc (Zn)-Total	mg/L	0.003	<0.30	<0.30	<0.30	<0.30	<0.30	<0.0030	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Zirconium (Zr)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	

CPT-07 pre-testing sample not collected due to proximity to CPT-06.

<sup>&</sup>lt;sup>1</sup>TSS criteria - 25 mg/L above background (pre-testing) levels (CCME, 2002).

<sup>&</sup>lt;sup>2</sup>Turbidity criteria - 8 NTUs above background (pre-testing) levels (CCME, 2002).

Detection Limit Raised: Dilution required due to high concentration of test analyte(s).



Table 5.2: Marine Water Quality Monitoring Results - Milne Inlet - 2019

	Drill Hole	Drill Hole/CPT ID		PT19-05		BH19-CPT19-06		BH19-CPT19-07		BH19-CPT19-08-A		BH19-CPT19-10	
	Da	ite	4/19/2019	4/19/2019	4/21/2019	4/21/2019	4/21/2019	4/21/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019	4/22/2019
	Tir	ne	12:45	16:35	10:30	10:30	14:25	17:30	9:10	13:55	8:20	14:30	17:15
	Samp	ole ID	BH19-CPT19-05-A	BH19-CPT19-05-B	BH19-CPT19-06-A	BH19-CPT19-06-A02	BH19-CPT19-06-B	BH19-CPT19-07-B	BH19-CPT19-08-A	BH19-CPT19-08-B	BH19-CPT19-08-A03	BH19-CPT19-10-A	BH19-CPT19-10-B
	ALS Labo	ratory ID	L2260707-4	L2260707-5	L2261708-1	L2261708-2	L2261708-3	L2261708-4	L2261791-2	L2261791-4	L2261791-1	L2261791-3	L2261791-5
	Sample	е Туре	Pre-Drilling	Post-Drilling	Pre-Drilling	Field Blank	Post-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Travel Blank	Pre-Drilling	Post-Drilling
LABORATORY RESULTS													
General Parameters	Unit	MDL											
рН	pH Units	0.1	7.76	7.83	7.76	5.91	7.7	7.73	7.76	7.75	6.15	7.8	7.75
Total Suspended Solids (TSS)	mg/L	2	13.6	13.2	12.8	<2.0	11.6	12	9.2	9.2	<2.0	6.4	12.4
Total Dissolved Solids (TDS)	mg/L	20	33500	32400	33100	28	32700	32700	32800	32500	<20	32300	33700
Turbidity	NTU	0.1	0.32	0.28	<0.10	<0.10	0.12	0.15	0.21	0.11	<0.10	0.22	0.15
Total Metals													
Aluminum (Al)-Total	mg/L	0.005	<0.50	<0.50	2.23	<0.0050	<0.50	<0.50	<0.50	<0.50	<0.0050	<0.50	<0.50
Antimony (Sb)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Arsenic (As)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Barium (Ba)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	0.01	<0.010	<0.00010	<0.010	<0.010
Beryllium (Be)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Bismuth (Bi)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050
Boron (B)-Total	mg/L	0.01	4.3	4.2	4.1	<0.010	4.2	4.1	4.4	4.6	<0.010	4.5	4.6
Cadmium (Cd)-Total	mg/L	0.000005	<0.00050	<0.00050	<0.00050	<0.000050	<0.00050	<0.00050	<0.00050	<0.00050	<0.000050	<0.00050	<0.00050
Calcium (Ca)-Total	mg/L	0.05	400	389	389	<0.050	395	387	403	428	<0.050	406	420
Cesium (Cs)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.00010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00010	<0.0010	<0.0010
Chromium (Cr)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050
Cobalt (Co)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Copper (Cu)-Total	mg/L	0.001	<0.10	<0.10	<0.10	<0.0010	<0.10	<0.10	<0.10	<0.10	<0.0010	<0.10	<0.10
Iron (Fe)-Total	mg/L	0.01	<1.0	<1.0	<1.0	<0.010	<1.0	<1.0	<1.0	<1.0	<0.010	<1.0	<1.0
Lead (Pb)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050
Lithium (Li)-Total	mg/L	0.001	0.14	0.14	0.11	<0.0010	0.13	0.12	0.16	0.2	<0.0010	0.18	0.19
Magnesium (Mg)-Total	mg/L	0.005	1320	1290	1330	0.0363	1330	1290	1310	1350	<0.0050	1280	1280
Manganese (Mn)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050
Mercury (Hg)-Total	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.00010	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.000010	<0.000010
Molybdenum (Mo)-Total	mg/L	0.00005	0.0105	0.0104	0.0102	<0.000050	0.0108	0.0114	0.0101	0.011	<0.000050	0.0109	0.011
Nickel (Ni)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050
Phosphorus (P)-Total	mg/L	0.05	<5.0	<5.0	<5.0	<0.050	<5.0	<5.0	<5.0	<5.0	<0.050	<5.0	<5.0
Potassium (K)-Total	mg/L	0.05	383	368	382	<0.050	387	386	410	406	<0.050	406	414
Rubidium (Rb)-Total	mg/L	0.0002	0.107	0.108	0.11	<0.00020	0.114	0.105	0.108	0.102	<0.00020	0.11	0.105
Selenium (Se)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050
Silicon (Si)-Total	mg/L	0.1	<10	<10	<10	<0.10	<10	<10	<10	<10	<0.10	<10	<10
Silver (Ag)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	0.000054	<0.0050	<0.0050	<0.0050	<0.0050	<0.000050	<0.0050	<0.0050
Sodium (Na)-Total	mg/L	0.05	10700	10800	10800	0.315	10900	11100	10600	10700	<0.050	9990	10800
Strontium (Sr)-Total	mg/L	0.001	7.34	7.18	7.32	<0.0010	7.37	7.29	7.01	7.37	<0.0010	7.17	7.27
Sulfur (S)-Total	mg/L	0.5	973	935	957	<0.50	956	961	981	987	<0.50	976	1010
Tellurium (Te)-Total	mg/L	0.0002	<0.020	<0.020	<0.020	<0.00020	<0.020	<0.020	<0.020	<0.020	<0.00020	<0.020	<0.020
Thallium (Tl)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.000010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00010	<0.0010	<0.0010
Thorium (Th)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Tin (Sn)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	0.00013	<0.010	<0.010
Titanium (Ti)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030
Tungsten (W)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010	<0.010	<0.010	<0.00010	<0.010	<0.010
Uranium (U)-Total	mg/L	0.00001	0.0032	0.0029	0.0031	<0.00010	0.0031	0.0031	0.0029	0.0028	<0.00010	0.0027	0.0026
Vanadium (V)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050	<0.050	<0.050	<0.00050	<0.050	<0.050
Zinc (Zn)-Total	mg/L	0.003	<0.30	<0.30	<0.30	<0.0030	<0.30	<0.30	<0.30	<0.30	<0.0030	<0.30	<0.30
Zirconium (Zr)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030	<0.030	<0.030	<0.00030	<0.030	<0.030

CPT-07 pre-testing sample not collected due to proximity to CPT-06.

<sup>&</sup>lt;sup>1</sup>TSS criteria - 25 mg/L above background (pre-testing) levels (CCME, 2002).

<sup>&</sup>lt;sup>2</sup>Turbidity criteria - 8 NTUs above background (pre-testing) levels (CCME, 2002).

Detection Limit Raised: Dilution required due to high concentration of test analyte(s).



Table 5.2: Marine Water Quality Monitoring Results - Milne Inlet - 2019

	Drill Hol	Drill Hole/CPT ID		BH19-CPT19-11		ВН19-С	PT19-12	BH19-C	PT19-13	BH19-CI	PT19-14	BH19-C	PT19-15
	Da	ite	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019
	Tir	ne	9:40	12:05	12:05	11:50	14:20	14:45	17:30	9:15	12:15	11:55	15:05
	Samp	ole ID	BH19-CPT19-11-A	BH19-CPT19-11-B	BH19-CPT19-11-B01	BH19-CPT19-12-A	BH19-CPT19-12-B	BH19-CPT19-13-A	BH19-CPT19-13-B	BH19-CPT19-14-A	BH19-CPT19-14-B	BH19-CPT19-15-A	BH19-CPT19-15-B
	ALS Labo	ratory ID	L2261871-1	L2261871-2	L2261871-3	L2261871-4	L2261871-6	L2261871-5	L2261871-7	L2263001-1	L2263001-2	L2263001-3	L2263001-4
	Sample	е Туре	Pre-Drilling	Post-Drilling	Duplicate	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling
LABORATORY RESULTS													
General Parameters	Unit	MDL											
рН	pH Units	0.1	7.78	7.79	7.78	7.8	7.79	7.79	7.78	7.78	7.78	7.78	7.8
Total Suspended Solids (TSS)	mg/L	2	14	15.2	17.6	10.4	30.8	15.6	12.4	19.2	19.6	13.3	15.2
Total Dissolved Solids (TDS)	mg/L	20	32500	33600	33200	33300	32600	32100	33800	32700	33100	32600	33500
Turbidity	NTU	0.1	0.13	0.61	0.49	0.32	0.27	0.34	0.24	0.21	0.16	0.11	0.15
Total Metals													
Aluminum (Al)-Total	mg/L	0.005	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Antimony (Sb)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic (As)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Barium (Ba)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium (Be)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth (Bi)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Boron (B)-Total	mg/L	0.01	4.5	4.3	4.3	4.6	4.6	4.5	4.6	4.5	4.5	4.6	4.4
Cadmium (Cd)-Total	mg/L	0.000005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00083	<0.00050	<0.00050	<0.00050
Calcium (Ca)-Total	mg/L	0.05	404	405	403	418	414	413	417	411	408	416	418
Cesium (Cs)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010
Chromium (Cr)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Cobalt (Co)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (Cu)-Total	mg/L	0.001	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron (Fe)-Total	mg/L	0.01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Lead (Pb)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Lithium (Li)-Total	mg/L	0.001	0.17	0.14	0.15	0.19	0.18	0.17	0.19	0.19	0.18	0.21	0.14
Magnesium (Mg)-Total	mg/L	0.005	1300	1310	1320	1290	1350	1330	1350	1320	1340	1280	1340
Manganese (Mn)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Mercury (Hg)-Total	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.00010	<0.00010	<0.000010	<0.000010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.00005	0.0104	0.0112	0.0104	0.011	0.011	0.0106	0.0116	0.0108	0.0098	0.0111	0.0109
Nickel (Ni)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus (P)-Total	mg/L	0.05	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Potassium (K)-Total	mg/L	0.05	412	409	404	404	424	412	415	422	408	389	389
Rubidium (Rb)-Total	mg/L	0.0002	0.108	0.104	0.1	0.108	0.102	0.101	0.105	0.108	0.105	0.101	0.105
Selenium (Se)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (Si)-Total	mg/L	0.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver (Ag)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium (Na)-Total	mg/L	0.05	10600	10600	10700	10500	10600	11100	10800	11000	10800	10800	11100
Strontium (Sr)-Total	mg/L	0.001	7	7.02	7.02	7.23	7.13	7.19	7.2	7.04	7.04	7.14	7.27
Sulfur (S)-Total	mg/L	0.5	972	989	988	975	1000	979	981	1000	1010	986	987
Tellurium (Te)-Total	mg/L	0.0002	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium (TI)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium (Th)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Tin (Sn)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Titanium (Ti)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Tungsten (W)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/L	0.00001	0.0027	0.0029	0.0027	0.0029	0.0026	0.0029	0.0028	0.0037	0.0029	0.0024	0.0029
Vanadium (V)-Total	mg/L	0.0005 0.003	<0.050 <0.30	<0.050 <0.30	<0.050 <0.30	<0.050 <0.30	<0.050 <0.30	<0.050 <0.30	<0.050	<0.050 <0.30	<0.050 <0.30	<0.050 <0.30	<0.050
Zinc (Zn)-Total	mg/L								<0.30				<0.30
Zirconium (Zr)-Total	mg/L	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030

CPT-07 pre-testing sample not collected due to proximity to CPT-06.

 $<sup>^{1}\</sup>text{TSS}$  criteria - 25 mg/L above background (pre-testing) levels (CCME, 2002).

<sup>&</sup>lt;sup>2</sup>Turbidity criteria - 8 NTUs above background (pre-testing) levels (CCME, 2002).

Detection Limit Raised: Dilution required due to high concentration of test analyte(s).



Table 5.2: Marine Water Quality Monitoring Results - Milne Inlet - 2019

	Drill Hol	e/CPT ID	ВН19-С	PT19-16		BH19-CPT19-17-A	
		ite	4/24/2019	4/24/2019	4/25/2019	4/25/2019	4/25/2019
		ne	14:40	17:45	9:45	13:48	13:48
	Samp		BH19-CPT19-16-A	BH19-CPT19-16-B	BH19-CPT19-17-A	BH19-CPT19-17-B	BH19-CPT19-17-B01
	ALS Labo		L2263001-5	L2263001-6	L2263402-1	L2263402-2	L2263402-3
		e Type	Pre-Drilling	Post-Drilling	Pre-Drilling	Post-Drilling	Duplicate
LABORATORY RESULTS			J				
General Parameters	Unit	MDL					
рН	pH Units	0.1	7.79	7.79	7.83	7.89	7.85
Total Suspended Solids (TSS)	mg/L	2	17.2	27.2	14.4	16	13.6
Total Dissolved Solids (TDS)	mg/L	20	34000	33300	33000	32300	32400
Turbidity	NTU	0.1	0.18	0.14	0.17	0.16	0.15
Total Metals		-		-	-		
Aluminum (Al)-Total	mg/L	0.005	<0.50	<0.50	<0.50	<0.50	<0.50
Antimony (Sb)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Arsenic (As)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Barium (Ba)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium (Be)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth (Bi)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Boron (B)-Total	mg/L	0.01	4.5	4.5	4.1	4.3	4.1
Cadmium (Cd)-Total	mg/L	0.000005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Calcium (Ca)-Total	mg/L	0.05	422	417	406	410	389
Cesium (Cs)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium (Cr)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Cobalt (Co)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (Cu)-Total	mg/L	0.001	<0.10	<0.10	<0.10	<0.10	<0.10
Iron (Fe)-Total	mg/L	0.01	<1.0	<1.0	<1.0	<1.0	<1.0
Lead (Pb)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Lithium (Li)-Total	mg/L	0.001	0.16	0.15	0.13	0.15	0.13
Magnesium (Mg)-Total	mg/L	0.005	1280	1310	1220	1260	1270
Manganese (Mn)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Mercury (Hg)-Total	mg/L	0.00001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.00005	0.0116	0.0105	0.0104	0.0107	0.0104
Nickel (Ni)-Total	mg/L	0.0005	<0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus (P)-Total	mg/L	0.05	<5.0	<5.0	<5.0	<5.0	<5.0
Potassium (K)-Total	mg/L	0.05	397	384	373	390	388
Rubidium (Rb)-Total	mg/L	0.0002	0.109	0.107	0.098	0.105	0.106
Selenium (Se)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (Si)-Total	mg/L	0.1	<10	<10	<10	<10	<10
Silver (Ag)-Total	mg/L	0.00005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium (Na)-Total	mg/L	0.05	10400	10800	10400	10400	11000
Strontium (Sr)-Total	mg/L	0.001	7.22	7.1	7.21	7.45	6.89
Sulfur (S)-Total	mg/L	0.5	968	1000	957	915	943
Tellurium (Te)-Total	mg/L	0.0002	<0.020	<0.020	<0.020	<0.020	<0.020
Thallium (TI)-Total	mg/L	0.00001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium (Th)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Tin (Sn)-Total	mg/L	0.0001	<0.010	<0.010	<0.010	<0.010	<0.010
Titanium (Ti)-Total	mg/L	0.0001	<0.030	<0.010	<0.010	<0.010	<0.030
Tungsten (W)-Total	mg/L	0.0003	<0.010	<0.030	<0.010	<0.030	<0.010
Uranium (U)-Total	mg/L	0.0001	0.0028	0.0027	0.003	0.0026	0.0029
Vanadium (V)-Total	mg/L	0.00001	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc (Zn)-Total	mg/L	0.003	<0.30	<0.30	<0.30	<0.30	<0.30
Zirconium (Zr)-Total			<0.030				<0.030
ZIICOIIIUIII (ZI)-TOLAI	mg/L	0.0003	<0.030	<0.030	<0.030	<0.030	<0.030

CPT-07 pre-testing sample not collected due to proximity to CPT-06.

#### MARY RIVER PROJECT

2019 QIA and NWB Annual Report for Exploration Geotechnical Activities

<sup>&</sup>lt;sup>1</sup>TSS criteria - 25 mg/L above background (pre-testing) levels (CCME, 2002).

<sup>&</sup>lt;sup>2</sup>Turbidity criteria - 8 NTUs above background (pre-testing) levels (CCME, 2002).

Detection Limit Raised: Dilution required due to high concentration of test analyte(s).



Table 6.1: Drilling Wastes Managed and Deposited on Inuit-Owned and Crown Lands - 2019<sup>1</sup>

Property Section	Type of Drilling Waste Produced (e.g. drill cuttings, drill mud)	Waste Storage Area / Type <sup>2</sup>	Waste Storage Location (UTM; NAD83)	Annual Drilling Waste Deposited (m³)³
Mine Site - Deposit No. 1 <sup>4</sup>	Drill Cuttings	In-Ground Sump - MR1-19-266	17 W 563195 7914315	0.84
Mine Site - Deposit No. 1 <sup>4</sup>	Drill Cuttings	In-Ground Sump - MR1-19-268	17 W 563111 7914176	0.72
Mine Site - Deposit No. 1 <sup>4</sup>	Drill Cuttings	In-Ground Sump - MR1-19-269	17 W 562994 7913994	0.45
			TOTAL	2.01

<sup>&</sup>lt;sup>1</sup>Other small volumes of drill cuttings were deposited within or within close proximity to land based geotechnical and exploration boreholes (refer to Table 2.1 for borehole coordinates).

<sup>&</sup>lt;sup>2</sup>In-Ground Sump IDs correspond to the exploration boreholes IDs that generated the deposited cuttings.

<sup>&</sup>lt;sup>3</sup>Approximate volumes based on visual assessment.

<sup>&</sup>lt;sup>4</sup>Inuit-Owned Lands - Parcel PI-17.



Table 8.1: New Impacts Related to Exploration and Geotechnical Activities on Inuit-Owned and Crown Lands - 2019

Property Section	Land Type / Parcel ID	Description of New Impact	Impact on Financial Security
Mine Site (Aerodrome)	Inuit-Owned Lands - Surface and Subsurface (PI-17)	The drilling program consisted of a total of three (3) boreholes on existing aerodrome area (disturbed) situated on Inuit-Owned Lands. Includes boreholes: BH19-01, BH19-02, BH19-06.	No impact on financial security. Boreholes promptly backfilled and equipment removed from site following completion of each borehole. No outstanding reclamation works.
Mine Site (Run of Mine Stockpile KM 106/107)	Inuit-Owned Lands - Surface and Subsurface (PI-17)	The drilling program consisted of a total of ten (10) boreholes at the Mine Site situated on Inuit-Owned Lands. Includes boreholes: KM107-DH19-02, KM107-DH19-03, KM107-DH19-04, KM107-DH19-05, KM107-DH19-06, KM106-DH19-01, KM106-DH19-02, KM106-DH19-03, KM106-DH19-04, KM106-DH19-05	No impact on financial security. Borehole promptly backfilled and equipment removed from site following completion. No outstanding reclamation works.
Milne Port (Foreshore - Milne Inlet)	Crown Lands	Nineteen (19) marine on-ice geotechnical cone penetration tests (CPT) on Milne Inlet (Crown Lands). Includes CPT locations: BH19-CPT19-01, BH19-CPT19-02, BH19-CPT19-03, BH19-CPT19-03B, BH19-CPT19-03C, BH19-CPT19-04, BH19-CPT19-05, BH19-CPT19-06, BH19-CPT19-07, BH19-CPT19-08, BH19-CPT19-09, BH19-CPT19-10, BH19-CPT19-11, BH19-CPT19-12, BH19-CPT19-13, BH19-CPT19-14, BH19-CPT19-15, BH19-CPT19-16, BH19-CPT19-17.	
Mine Site (Deposit Nos. 1 & 3)	Inuit-Owned Lands - Surface and Subsurface (PI-17)	The drilling program consisted of nineteen (19) boreholes; twelve (12) on Deposit No. 1 and seven (7) on Deposit No. 3. Includes boreholes: MR1-19-251, MR1-19-253, MR1-19-254, MR1-19-257, MR1-19-258, MR1-19-259, MR1-19-260, MR1-19-262, MR1-19-264, MR1-19-266, MR1-19-268, MR1-19-269, MR3-18-244, MR3-19-255, MR3-19-256, MR3-19-261, MR3-19-263, MR3-19-265, MR3-19-267. Drilling equipment at exploration borehole on Deposit No. 3 for 2019 exploration drilling activities, included a drill rig, drill platform, casing, drill rods, lumber and water tubs.	No impact on financial security. All equipment removed, with the exception of survival shelters and supplies remaining at borehole MR3-19-256 and water source MRP-3.



Table 8.2: Reclamation Works Related to Exploration and Geotechnical Activities on Inuit-Owned and Crown Lands - 2019

Property Section	Land Type / Parcel ID	Reclamation Objectives	Reclamation Principle	Description of Reclamation Works	Regulatory Authority	Impact on Financial Security
,	Inuit-Owned Lands - Surface and Subsurface (PI-17)		Progressive Reclamation	Boreholes backfilled and drilling equipment removed at the three (3) 2019 land-based geotechnical borehole locations at the aerodrome	CIRNAC	No impact on financial security held by the QIA. No reclamation works outstanding for 2019 activities.
KM 107 & 106)	Inuit-Owned Lands - Surface and Subsurface (PI-17)	Provide for the long term physical, biological and chemical stability of the Exploration Project areas so as to protect the public health and safety and ecosystem.	Progressive Reclamation	Boreholes backfilled and drilling equipment removed at the ten (10) 2019 land-based geotechnical borehole locations adjacent to the Haul Road at KM 107 and KM 106.	QIA	No impact on financial security held by the QIA. No reclamation works outstanding for 2019 activities.
Milne Port (Foreshore - Milne Inlet)	Crown Lands	protect the public health and safety and ecosystem integrity.  • Allow for productive use of the land where exploration activities are undertaken and ensures all disturbed areas are restored to a pre-disturbed state upon completion of work.  • Ensure that the land is reclaimed in a manner that minimize or prevents erosion, and negates the requirement for long term maintenance and monitoring.	Progressive Reclamation	Removal of drilling equipment associated with the marine on-ice geotechnical program on Milne Inlet.	QIA	No change in financial security held by the Crown (CIRNAC). No reclamation works outstanding for 2019 activities.
l` '	Inuit-Owned Lands - Surface and Subsurface (PI-17)		Progressive Reclamation	Drilling equipment removed from the exploration boreholes at the Mine Site on Deposit No. 1 and 3, with the exception of survival shelters and supplies stored at borehole MR3-19-256 and water source MRP-3.	QIA	No impact on financial security held by QIA. Exploration boreholes are either situated within the disturbed active mining area limits or are within close proximity to the Mine Haul Road and active mining area, resulting in negligible costs to reclaim. Borehole casings and drill rig anchoring rods were cut to near ground surface.



Table 8.3: Mary River Project Total Closure and Reclamation Security Summary - 2019<sup>1</sup>

Authorization	Liability	Securities Held on 1 Jan 2019 (Actual) (\$)	Adjustment for 2019 ASR (Actual) (\$)	Securities Held on 31 Dec 2019 (Actual) (\$)
				F-D
Type 'A' Water Licence	IOL <sup>2</sup>	73,829,771		104,687,658
2AM-MRY1325	Crown	1,298,555	150,246	1,448,801
Subtotal Ty	pe 'A' Water Licence	75,128,326	31,008,133	106,136,459
Type 'B' Water Licence	IOL <sup>2</sup>	-	-	-
2BE-MRY1421	Crown	1,250,000	-	1,250,000
Subtotal Ty	pe 'B' Water Licence	1,250,000	-	1,250,000
	GRAND TOTAL	76,378,000	31,008,000	107,386,000

<sup>&</sup>lt;sup>1</sup>Totals rounded to nearest '000 in CAD.

<sup>&</sup>lt;sup>2</sup> All security relating to IOL held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301.