

Eqe Bay Exploration Program – 2018 Annual Report to the Nunavut Impact Review Board



Screening Decision 18EN026 ^らアア ママン ムイレ ママン ムロット 18EN026 March 31, 2019 / ビン 31, 2019



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ABBREVIATIONS

Baffinland Iron Mines Corporation	Baffinland
DFO	Department of Fisheries and Oceans Canada
Eqe Bay Exploration Program	the Program
HTA	Hunter and Trapper Associations
km	kilometres
NIRB	Nunavut Impact Review Board
QIA	Qikiqtani Inuit Association
the Program	Eqe Bay Exploration Program
the Report	2018 Annual Report
the Screening Decision	Screening Decision 18EN026



1 - INTRODUCTION

This 2018 Annual Report (the Report) to the Nunavut Impact Review Board (NIRB) is a requirement of Baffinland Iron Mine Corporation's (Baffinland's) Screening Decision 18EN026 (the Screening Decision) for the Eqe Bay Exploration Program (the Program). The Annual Report provides a summary of activities undertaken for the previous year, progressive reclamation completed, community consultations and records of traditional land use, wildlife observations and any mitigation measures implemented, and how Baffinland has complied with the conditions of the Screening Decision.

1.1 PROGRAM OVERVIEW

The Program is located within the Qikiqtani (South Baffin) region, approximately 90 kilometres (km) southeast of Steensby Port, and 190 km northeast from the communities of Hall Beach and Igloolik. Figures 1 and 2 show the location and the geographic extent of the exploration area. The Program is expected to be active until October 2024.

The Program includes the following undertakings, works and activities:

- Use of sealift barges to deliver supplies to the beach near the proposed exploration area;
- Archaeological surveys within the exploration area;
- Set-up and operation of a 50-person trailer camp to support personnel and subsequent expansion of the camp to accommodate 100 persons;
- Use of drill equipment to drill several holes to a depth of up to 500 metres;
- Use of helicopters to move drills and to transport workers between the drill and camp site;
- Use of a Twin Otter aircraft to transport workers and deliver supplies to the camp site from either Mary River, Hall Beach or Igloolik;
- Use of pick-up trucks, heavy equipment and machinery for site personnel use and transportation including construction and site maintenance; and
- Installation of containerized waste water treatment plant, water purification plant and power generators including deployment of a hard-wall shop for maintenance.

As Baffinland is currently in the Type B water licencing process and is seeking a Land Use Lease with the Qikiqtani Inuit Association (QIA), most Program activities that were planned for 2018 have been deferred to 2019.





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1.2 REGULATORY CONTEXT

On August 17, 2018, the NIRB issued Screening Decision 18EN026 for the Program to Baffinland (NIRB, 2018) pursuant to Section 92 of the *Nunavut Planning and Project Assessment Act* (Minister of Justice, 2017). The basis for the Screening Decision is Baffinland's proposed scope, which gives an overview of the early phases of the Program and a potential 5-year outlook (Baffinland, 2018).

Baffinland currently operates the Program in accordance with the permits, licences, approvals, authorizations and agreements identified in Table 1. In addition, Baffinland's contractors and consultants undertake various activities on the Program under additional permits in the areas of scientific research and archaeology. It should be noted that at this early stage of Program development, several of the below permits are currently under review.

Approval	Program Activity	Expiry				
Nunavi	Nunavut Impact Review Board Nunavut Agreement, and the Nunavut Planning and Project Assessment Act					
Screening Decision 18EN026 Nunavut Agreement (Article 12)	Required to obtain the requisite permits and approvals to proceed with Program	No Expiry				
Agree	Qikiqtani Inuit Association ments issued under Articles 6, 20 and 26 of the Nunavut Agreement					
Land Use Lease - Under Review	Camp development and Exploration activities on Inuit Owned Land	N/A				
Land Use License - Under Review	Required for access to IG-02 and IG-03 for low-impact exploration and scientific research activities	N/A				
Water Licences issued under the Nunavut A	Nunavut Water Board Agreement (Article 13), the Nunavut Waters and Nunavut Surface Rights Tribunal Act Territories Water Regulations	t, and the Northwest				
Type B Water Licence 2BE-EQE - Under Review	Camp operation and exploration activities specific to the Eqe Bay Exploration Program	N/A				
Type B Water licence 2BE-MRY1421	Regional exploration activities, including exploration drilling	April 16, 2021				
Mineral Claims on Crown Land, issued	Crown Indigenous Relations and Northern Affairs Canada under the <i>Territorial Lands Act</i> and associated Canadian Mining Regulations and Ter Regulations	ritorial Land Use				
Mineral Claims F94686 - F94723, K15810 - K15813, K15815 - K15823, K24154, K24162 - K24189 - Prospectors License 10864	Mineral claims staked on crown land	Various				
Nunavut Tunngavik Incorporated Exploration Agreements						
NTI Exploration Agreement PI17-001C	Joint-venture agreement between NTI and Baffinland for IG-03	May 1, 2028				
Nunavut Research Institute Issues scientific licences for land and water research, or social and traditional knowledge research, under the <i>Scientists Act</i>						
Scientific Research Licence 02 009 18R-M	Environmental monitoring of the land and water environments	December 31, 2018				

Table 1 Permit Registry

In addition to the above noted permits, Baffinland will seek approval from the Department of Fisheries and Oceans Canada (DFO) in the form of Letters of Advice, or if required an Authorization under the *Fisheries Act*, for the installation of water crossings in the exploration area. However, as these structures are not required in the early stages of exploration, these approvals have not yet been sought.

1.3 OTHER REGULATORY APPROVALS

As noted in Table 1, Baffinland has applied for the relevant QIA Land Use Lease, as well as a Type B water licence through the Nunavut Water Board. These applications are currently under review by the respective regulators.



2 – ENGAGEMENT ACTIVITIES

2.1 ENGAGEMENT APPROACH

Meaningful stakeholder and Inuit community engagement is valued by Baffinland as a means of building and maintaining community relationships and continuously optimizing community benefits of the Program. Baffinland's approach to stakeholder engagement emphasizes the importance of informing stakeholders, establishing effective communication strategies, and collecting feedback from stakeholders on potential issues and concerns (Figure 3).



Figure 3 Baffinland's Approach to Stakeholder Engagement

2.2 ENGAGEMENT OBJECTIVES

Baffinland is committed to meaningful engagement with stakeholders potentially affected by the Program, including the two (2) closest North Baffin Inuit Communities (Hall Beach and Igloolik), the QIA, applicable regulatory agencies and the general public.

The objectives of Baffinland's engagement efforts are to:

- Provide stakeholders and Inuit communities with relevant Program information in a timely, accessible and culturally appropriate manner in order to enable stakeholders to identify issues and concerns and provide input into the development of appropriate mitigation measures;
- Ensure that stakeholders and Inuit communities have the opportunity to understand and meaningfully engage in the processes initiated by the Program;
- Build constructive and positive relationships with the communities most likely to be affected by the Program;
- Consider traditional and local knowledge as well as scientific expertise in internal decision-making processes;

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- Focus priorities so that potential adverse effects are mitigated, and Program benefits are enhanced; and
- Incorporate additional knowledge and expertise from potential partners (e.g. communities, academic researchers, government agencies).

2.3 ENGAGEMENT ACTIVITIES

In support of the Company's focus on continuous improvement and the engagement objectives defined for the Exploration Program (Section 2.2), Baffinland is implementing a variety of engagement mechanisms that are intended to ensure that a broad and comprehensive approach to the identification of stakeholders and that the creation of enhanced opportunities for dialogue and input are executed.

2.3.1 Community Group Meetings

Baffinland held two rounds of meetings with Hamlet Councils and Hunter and Trapper Associations (HTAs) in both in Hall Beach and Igloolik in 2018 (Table 2).

Community	Stakeholder Group	Date	Торіс
	Hamlet of Hall Beach Hall Beach Hunters and Trappers Association	April 5, 2018	Program Overview
Hall Beach	Hamlet of Hall Beach Hall Beach Hunters and Trappers Association	November 26, 2018	Program Update
1-1	Hamlet of Igloolik Igloolik Hunters and Trappers Association	April 6, 2018	Program Overview
Igloolik	Hamlet of Igloolik Igloolik Hunters and Trappers Association	November 27, 2018	Program Update

Table 2 Community Group Meetings Held in 2018

The November 26, 2018 meeting in Hall Beach was cancelled due to a funeral in the community, however presentation materials were provided to the Mayor for later distribution to Council and the HTA.

Several comments were raised by Hamlet Council and HTA members during the Community Group meetings. The feedback provided was a mix of comments that were both supportive of the Program and comments related to concerns or issues the participants perceived or were experiencing. Most of the comments raised at the meeting were related to:

- Potential for Inuit employment;
- Marine environment;
- Terrestrial environment;
- Potential effects on land use and harvesting;
- Training opportunities; and
- Effects of the program on heritage sites.

A copy of comments received from meeting participants has been provided in Appendix A.

2.3.2 Land Use Activities

Historic land use information collected for the Mary River Project suggest that Inuit occupied traditional settlements in the general area (Crowe, 1969 in Knight Piésold Ltd., 2010), and this was confirmed during consultation with Igloolik and Hall Beach. The area is less frequently used in modern times due to the large distance from the communities.

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As limited exploration activities (surface sampling conducted from Mary River) were undertaken in 2018 (Section 3), no observations of other land users were noted by Project personnel. In 2019, Baffinland will maintain a human use log, tracking instances where residents from nearby communities occupy or transit through the exploration area for the purposes of traditional land use or harvesting. The log will include information such as the:

- The number of people encountered;
- Information regarding the activity being undertaken if this information is shared by residents (e.g. berry picking, fishing, hunting, camping, etc.);
- Date and time; and
- Any mitigation measures or adaptive management implemented by Baffinland to minimize disturbance to land users.

2.3.3 Looking Ahead

Baffinland will continue to implement a proactive approach to engagement with various stakeholders, through meetings, workshops, surveys and dissemination of information and reports. This will ensure that the communities, QIA, regulators and the public are informed in a timely and culturally sensitive manner of the Exploration Program's progress and the potential environmental and social impacts of ongoing operations.



3 - OPERATIONS OVERVIEW

SITE ACTIVITIES COMPLETED IN 2018 3.1

As Baffinland pursued the relevant regulatory approvals and land use agreements in 2018, none of the planned camp setup and operation was carried out in the project area in 2018. No human activity, land disturbances, water use, wildlife interactions, or reclamation activities occurred during the reporting period (October 1 to December 31, 2018).

In the summer of 2018, prior to the Screening Decision an archaeologic assessment was undertaken at the Program site as well as a preliminary aquatic life survey on the lakes and streams associated with the potential culvert crossings. An archaeological permit report was submitted to the Department of Culture and Heritage, and a report documenting the preliminary aquatic survey is provided in Appendix C. Baffinland also conducted airborne geophysical surveys from June through July and completed basic prospecting work, which consisted of overland travel by foot and the collection of rock samples for laboratory analysis. Both of these activities were done in preparation for the drilling program, which was deferred to 2019.

Photos of the Program area are provided in Appendix B.

AIRCRAFT FLIGHTS 3.2

The Screening Decision for the Program requires Baffinland to advise pilots of flight height restrictions when travelling to and from the Program site. Specifically, Baffinland is to notify pilots of the minimum flight altitude of 610 metres above ground level (except during landing, take-off or if there is a specific need for low-level flying) and that the aircraft maintain a vertical distance of 1,000 metres and a horizontal distance of 1,500 metres from any observed groups of migratory birds. Data from helicopter flight logs was analyzed to monitor compliance for the 2018 season.

Flight height data points were designated "compliant" when elevation requirements of a minimum flight altitude of 610 metres and a minimum flight altitude of 1,100 metres over the Snow Goose Management Area for the months of July and August were achieved, or where pilot's discretionary rationale for deviating from flight heights was provided. Data points were designated "non-compliant" if they did not meet elevation requirements, and no explanation was given. Flights were compliant 98.7 % of the time and non-compliant 1.3% (Table 3).

Total Flight Data	Compliant Data	Percent	Non-Compliant Data	Percent
Points	Points	Compliance	Points	Non-Complianc
13,820	13,644	98.7 %	176	1.3 %

Table 3 Summary of Flight Compliance

The total number of flights to the Program area from May to September 2018 was 344. Most of these flights are attributed to the deployment of prospecting teams and airborne geophysical surveys that were undertaken prior to receipt of the Screening Decision and commencement of reporting period for this report¹. Flight altitudes ranged from 0 to 2,200 metres. Maps 1 and 2 in Appendix D show the anticipated flight routes for the Program and the flight paths for the 2018 season.

¹ Flights to the Program area have also been captured in the Terrestrial Annual Report for the Mary River Project (EDI, 2019) and 2018 Annual Report to the NIRB, as the airborne geophysical surveys were carried out under permits and Licences associated with that project. The number of flights described here have therefore been provided largely for informational purposes and are duplicative of, and not in addition to, the number of flights reported for the 2018 Mary River Project.

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3.3 WILDLIFE OBSERVATIONS

As there was no activity at the exploration area during the reporting period (October 1, 2018 to December 31, 2018), there were no recorded wildlife observations or mitigation measures implemented in 2018.

3.4 ARCHAEOLOGICAL SITES

Baffinland retained a qualified archaeologist (Claude Pinard) to undertake an archaeological survey of the exploration area in 2018. Fourteen (14) archeological sites were identified:

- 6 habituation sites;
- 3 sites of Paleo-eskimo occupation;
- 2 sites of indeterminate prehistoric occupation;
- 1 site of contemporary occupation;
- 5 storage sites of historic and contemporary occupation;
- 1 large stone cache or shelter, and
- 2 sites which are a stone trap for fox that represent a historic occupation.

It was identified that one (1) of the sites interacts with the area proposed for the sealift. The site was protected during 2018 by placing a wood stake with a silver top to demarcate the area and to ensure avoidance of the site. No sites of archaeological importance were identified at the proposed camp location or in areas where helicopters or twin otters are expected to land. Additional sites west of the proposed camp location were also treated with protection measures.

During commencement of the drill program, visual scans of the drill area will be undertaken to assess if any additional archaeological remains are encountered. A description of all mitigation measures that will be applied to minimize interactions with existing and potential future identification of archaeological sites is provided in the Eqe Bay Environmental Protection Plan (Baffinland, 2019).

3.5 LOOKING AHEAD

Activities that were largely planned for 2018 were rescheduled for 2019. A summary of the planned 2019 activities (subject to change) are as follows:

- 1. Use of sealift barges to deliver supplies to the beach near the proposed exploration area.
- 2. Set-up and operation of a 50-person trailer camp to support personnel and subsequent expansion of the camp to accommodate 100 persons.
- 3. Bathymetric surveys of Lakes EB-1 and EB-2 and if resources are available, other nearby water bodies.
- 4. Use of drill equipment to drill several holes to a depth of up to 500 metres.
- 5. Use of helicopters to move drills and to transport workers between the drill and camp site.
- 6. Use of a Twin Otter aircraft to transport workers and deliver supplies to the camp site from either Mary River, Hall Beach or Igloolik.
- 7. Use of pick-up trucks, heavy equipment and machinery for site personnel use and transportation including construction and site maintenance.
- 8. Installation of containerized waste water treatment plant, water purification plant and power generators including deployment of a hard-wall shop for maintenance.
- 9. Environmental monitoring in accordance with the approved Screening Decision, licenses, authorizations, management plans and environmental effects monitoring plans.

Operations Overview

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10. On-going exploration activities including drilling, mapping, prospecting, sampling and geophysics. Planning of the details of the summer drilling and/or trenching program is not yet finalized.

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4 - PERFORMANCE ON TERMS AND CONDITIONS

As none of the planned Program activities occurred in 2018, a performance evaluation of the 59 terms and conditions laid out in the Screening Decision is not possible. Where information on Exploration Program activities is available, it has been provided in this report.



5 - MANAGEMENT PLANS

Environmental Management and Monitoring Plans for the Program have been updated and submitted to applicable regulatory authorities or review agencies, as requested, through various permitting applications (Type B Water License and QIA Land Use applications). Table 4 lists the Management Plans developed for the Eqe Bay Exploration Program.

Table 4 Current List Environmental Monitoring and Management Plans

Document Number	Plan Name	Current Revision Date
BAF-PH1-400-P16-0001	Environmental Protection Plan	22 February 2019
BAF-PH1-400-P16-0002	Spill Contingency Plan	22 February 2019
BAF-PH1-400-P16-0003	Closure and Reclamation Plan	22 February 2019
BAF-PH1-400-P16-0004	Environmental Inspection and Monitoring Plan	22 February 2019
BAF-PH1-400-P16-0005	Waste Management Plan	22 February 2019
BAF-PH1-830-P16-0001	Surface Water Sampling Program - Quality Assurance and Quality Control Plan	29 March 2017



6 – REFERENCES

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APPENDIX A COMMUNITY ENGAGEMENT RECORDS

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Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	This site is closer to the tide water. I imagine you'll have measures to protect the marine environment?	Regarding contaminants reaching the ocean, we have a Spill Contingency Plan. We are also planning to bring in water treatment systems, so we will be discharging treated water. We are sensitive about being close to the ocean, and we are taking measures to address any issues that arise.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	Looking at Igloolikmiut camps, the local people that have lived in those traditional camps get homesick for those places. From here on, you are planning to build an airstrip and you're planning to build roads. I am worried it will affect the migration of wildlife and the ecosystem.	With respect to concerns about historical camp sites, grave site, hunting areas, we have always engaged archaeologists to perform studies over the areas we are planning to perform exploration work. We will engage an archaeological team to look at these areas that we are going to be doing the advanced work. Any sites (camps, graves) of historical significance, we will alter our plans accordingly. That's why we need to establish a good relationship; so, everyone understands the concerns. Baffinland also has several mitigations in place to minimize disturbances from helicopters on wildlife.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	This is very sensitive for us, especially for the Elder on my left – it is his traditional hunting area. According to my dad's stories, there was a camp here in the past and minerals were found there. Our grandparents found those, initially. Those have been taken away from us again. Will you be acknowledging the historical areas?	Baffinland is very sensitive to the historic usage of the area. We will continue as we have in the past to engage archaeologists and community members to determine the usage of the area. This land hasn't been taken away from you. The area that we are showing on the map is on IOL parcel IG-03, so people here will benefit. We are at a very early stage in determining what minerals are there. Our purpose for exploration is to look for areas that may have minerals that are worth developing. It's a long process and very complex. We look at all aspects of impacts. We will work with Igloolik to help make that journey. Baffinland has submitted an application for an archaeology permit to the territorial archaeologist to conduct additional archaeological surveys in the summer of 2018.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	lgloolik	With helicopter, this usually impacts migration of the animals. Will there be compensation available. Do we have to apply to the QIA for money?	Baffinland has several mitigations in place to minimize disturbances from helicopters on wildlife. There is a Wildlife Compensation Fund as part of the IIBA. The Fund is administered by the QIA.





Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	I myself have heard that they are thinking of doing exploration at Eqe Bay. Our grandmother's grave - would they include the water as they said they would in the past? My other question, when they were drilling in 1960-61, the places they drilled before, do you have the locations of where they were drilling? And in Igloolik, there are almost no jobs available, and our population is increasing. I've always wanted someone who can work properly and smoothly. If it is going to run into problems or be dangerous, keep Igloolik informed. The land wasn't cleaned up before.	We do extensive archaeology before doing any drilling. The territorial archaeologist in town, can communicate the location of family's grave sites to her, or to us. Baffinland is willing to have 1 or 2 people from Igloolik knowledgeable of the area participate in the archaeology survey this summer. I am aware of the historical exploration; there was a camp site and drilling in the 1960s. We now follow a completely different set of standards; we are responsible for returning the sites to their original condition as much as possible, if we don't move forward with development. We have to establish financial assurance to return the land to its original state.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	The exploration seemed like the exploration previously went right up to the sea.	Baffinland does not have any plans to conduct exploration on the intertidal zone or areas immediately adjacent to the shoreline.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	You mentioned briefly an agreement. There is one in place right now, and it isn't being used properly. Sometimes they don't want to pay, and you have to get the money through a lawsuit. If Baffinland isn't caught up with the agreement and you want our support for Eqe Bay. We will not be satisfied until the agreement is being followed properly.	There are committees reviewing the performance on the IIBA. Every year, they are working to improve on carrying out the agreement. We also hold an Annual Project Review Forum with QIA on an annual basis to discuss the status of implementation of the IIBA.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	I would like to hear if there would be a new agreement or part of the same agreement?	If developing the project proves to be economically feasible, we would forward with working on a separate IIBA for this project. As we mentioned, we are at early stages and a lot needs to happen before we get to that point.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	The benefits that Igloolik have been receiving are less than what was expected. We are at 16% employment. I don't see a lot of long-term benefits to each community.	Thank you for your comment. We are continuing to work with QIA to ensure that the benefits of the IIBA are realized to the fullest extent possible.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	I am in full support of Eqe Bay Project, so that my grandkids can have employment in the future. And I am in full support that they want to produce employment at Eqe. I would like exploration done so they can create more jobs.	Thank you for your comment. No response required.
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	If you are applying for the next 5 years, training should be planned for the five years as well. You have prospecting and drilling assistants. You said they would be available, and they would probably be available for training. If you are going to be drilling in 2019, those training probably wouldn't be done training. If training is done way ahead of time it would be better. For Inuit employment, if you can provide higher positions, not just cleaners and cooking assistants.	We will continue to work with the community to provide training and employment opportunities for both the Eqe Bay Program and the Mary River Project.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-06 Igloolik Municipal Council, Igloolik HTA and QIA Re: Eqe Bay Exploration Program	Igloolik	Three topics. I myself want the environment protected. Although the job opportunities are important, I also want the environment protected. While they are exploring, once they have done their exploration, we know they won't be making any money and they have to clean up the area. They have to close it and try to put it back the way it was before. Will they go back to Baffinland, or will they be surplus and given to QIA? If that were to happen, if they make money they would probably stay there. If they are going to drill deep down, what will they use to close them up (the drillholes)?	We are required to put up money to guarantee that we will clean the site up if we don't move forward to development, and restore the site to it was before. Regarding the camp and equipment, that would be a decision that upper management would make, whether it was sold off to the community our brought to another project. For reclamation of drillholes, drilling has small disturbance impacts. The site is cleaned up and the hole is backfilled.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	Does this presentation cover drilling?	Yes, that is part of the Eqe Bay Program that we are here to discuss today.

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Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	I've also heard that they used their helicopter to scare caribou away from areas that they wanted to explore. I hope that Baffinland would not want to do that. There have been several people that have gone to Nova Scotia to the Maritime Drilling School. There are several people whose certificates are expired. Would they check with Igloolik if there are any job openings?	We have restrictions on how close we can fly to migratory waterfowl. If there are caribou in any areas, we have to avoid those. With respect to the training programs, we are going to talk with some of our contractors to resurrect a training program we had for driller helpers. With respect to the other training programs, they will be run-in house.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	What about the Inuit who know Eqe? We go there a lot and we know the animals. Without consulting us, you are going ahead. We don't have any documents. It seems as though we are just ignored. You should start by researching the animals. Are you just going to go right ahead?	As part of the baseline studies we completed for the Mary River Project, we implemented expansive knowledge surveys with the communities that would be affected by the project, including Hall Beach and Igloolik. That included the areas of historical use in the Steensby area and even Eqe Bay. This is a very early stage exploration project, so very little work has been done in the Eqe Bay area. But you're right, and that's why we're here today. To hear your concerns and to develop a position where we are able to conduct the necessary surveys.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	We know Eqe Bay animals as we are always going over there. I'll probably be going over there this summer for Eqe Bay hunting. The younger caribou usually stay there as it's their home base. I'm thinking, maybe Baffinland and as Inuit, maybe if we made an agreement, part of Eqe, around Eqe Bay area where the animals are, don't touch that area at all. Between Eqe and Ikpik? area. I wouldn't want that area touched at all, because once it's affected, they won't be there at all, as it's their route. I know that area very well. Its important for the caribou and I don't want anyone to touch that area.	Thank you for the comments. As part of the community engagement process, as an example, next year, we will have at least one visitation from Hall Beach and Igloolik of hunters and elders to the Eqe Bay area so that Baffinland can gain an appreciation of the sensitivities of Eqe Bay area. Thank you for your suggestion.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	I'd also like to say a little bit. The camp area doesn't seem to be in the beach area. Would it be on the mainland? Us Nunavummiut aren't really from the mainland area. We're usually drawn to the sea. Maybe ask Mary River employees how they like working on the mainland as I don't think I'd really like it. I think you'd have more Inuit employed if it were on the sea.	This is an early stage exploration project, and we will be working both near and far from the shore. The camp will be within 1 km of the shore, probably the equivalent of the farthest house in Igloolik from the ocean.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	The sealift-unload is exactly on the skidoo trail when we go hunting. I'd like to see it moved to IG-04.	What the map represents is just where supplies would be offloaded. There would not be any barriers there.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	I agree with the last comment. Snowmobile access route for hunters is very important. That is a very important snowmobile access route for hunters.	Same with the proposed travel ways. If anything it would be a first-pass road, maybe an ice road. As this is first-pass exploration, there will be no barriers.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	I don't think his question was understood. That camp is exactly right on the trail.	Within that, the camp is very small. On the map, we have to show an overall area we'd like to have permitted. The actual size of the camp will be very small, and it's not as if the green area will be an area you can't pass through.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	From Steensby it seems like we have to go somewhere else. Would it be possible to change the location of your camp?	The development area covers the proposed port facility that has been approved in past project permitting activity. As a result, the exploration camp will disappear entirely. That is beyond the scope of what we are discussing here. We're just looking to provide shelters for hunters that is convenient.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	I'd like to ask about the two cabins. The ones you want for HTO, they'd be used by hunters and be moved by helicopters? My question is, could they be moved outside of the Steensby port area, or does it have to be close to Steensby area?	There are limitations to moving those structures with the helicopters, so we were looking in the Steensby area. But we can entertain ideas from the hunters, so we'd like to get your suggested feedback.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	And you want to do this in 2019?	We'd like to do this in 2019. This would be done in anticipation of future phases of the Project. We'd like to get this done early so that it's safest for hunters. It's a good opportunity.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	lgloolik	I don't think there's very many of us that go hunting and fishing up at Steensby. All that I know is that there's oysters. I think the HTO needs to speak up and say where they'd like cabins.	I'd like to make a point. I think this summer, there were hunters that thought we had abandoned Steensby and started using the camp. We'd like to provide these cabins so that no accidents happen and so that nothing gets broken at Steensby. We don't want to hold any grudges. I know the camp looks like it's abandoned, but the supplies there are still owned by Baffinland.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	lgloolik	Thank you for the opportunity to provide input on where the cabins will go. I think we need more time to decide where these cabins will go. I'd like to have more time to talk with the HTO and then we can provide additional feedback to Baffinland.	That's right. We didn't expect this to be sorted out right away, we just wanted you to be aware that we are willing to do this so that you have time to think about it.

Records

Baffinland				Appendix A Community Engagement Records	
Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response	
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	What I want to talk about is the sealift and the airport. Will they be using explosives? The reason I'm asking is that they are very shallow. We can't do anything about these projects because they are already approved. We'll have to have conversations with NIRB and the QIA and HTO and Hamlet. They should let us know what they're doing, but we never seem to hear from them. We hear after they approve things.	For the sealift, there will be no port facility or pier. There is no construction for that, so there will be no explosives. We are looking at potential quarry sites for future purposes such as building an airstrip. We won't be quarrying initially. We have to do testing at potential quarry sites for various characteristics of the rock. If we do have explosives, they will be nowhere near the water. To address your initial comments about project proposals. We submit a project proposal to NIRB and they put it on their website for public comment. The responsibility really lies with NIRB and the QIA to make sure the public is informed. Our job is to do exactly what we are doing right now. Our projects can only be moved forward with support from mother nature and from the communities.	

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Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	After the Mary River research was done for the animals, I want to know why the Eqe Bay area animals are treated the same. They are completely different. Also, there was an agreement between NTI and BIM regarding research. Was there anyone that came to Igloolik about this? Also, you said the NIRB website is available? Hunters don't use computers. Is there any other form of media that could be used to spread information about this? It seems like the decisions have already been made about this. Can changes be requested or is that it?	The animals around Mary River and Eqe are definitely different. During the gathering of information for the Mary River project, the gathering of traditional knowledge covered communities with areas that cover the Steensby and Eqe Bay areas, showing traditional use of the Eqe, Steensby and Grant Suttie areas. To move forward with the Eqe Bay area, we would go into much greater details as to the animal distribution around the Eqe Bay area. The 59 recommendations and regulations in the project certificate would be followed, which mandate baseline animal studies. Both Hall Beach and Igloolik, through the NLCA, have control over the IG-3 and IG-02 areas. These communities' do have input regarding what kind of development can occur in these areas. The nature of exploration projects is that they move forward in steps.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	As people from Igloolik, we use Eqe Bay a lot for hunting, either by skidoo or boat. Have you talked with them about Eqe Bay, about the animals? We can't exactly save the animals live, but never seem to hear about the Eqe Bay animals. You say you have heard from elders, but this is the first that we have heard of it.	As I've said, this is early stages for the Eqe Bay Project. The previous comments were about the Mary River Project. As a result of those studies, we have a general background. Now that we have partial project approval, one of the requirements, is that we engage in a detailed traditional knowledge study to determine the distribution of animals. It's one of the 59 conditions NIRB gave us for approval of the Eqe Bay Project. You are exactly right, we have a general knowledge, but we will need to do more detailed studies.



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	When you started the planning process for Eqe Bay exploration, because you've thought about it, you're starting the work? How come you didn't ask us first if you could start a project in Eqe Bay? You asked people who don't know the animals for a permit, but you didn't ask us first.	We've started with a very low-impact process which minimizes our impact on animals and the environment. It's a very expensive area to work, and I know that shouldn't be a discriminating factor. We have to go somewhere to look for money. We aren't at a project level yet, we're still at a proposal level. If the Project ramps up, we will complete additional environmental and land use studies to inform Project planning.
Community Group Meeting	2018-11-27 Igloolik Municipal Council and Igloolik HTA Re: Eqe Bay Exploration Program and Steensby hunters' cabin	Igloolik	Regarding the trail. Will the hunters be compensated for us using their trail?	We work closely with them, we can consider more closely how to mitigate any direct impacts to hunters.
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	These presentations should have been sent in advance of the meeting, so that we don't need to reach and pay attention to the presentation at the same time. Maybe next time around it would be better.	Thank you for bringing this up. I apologize for being short notice. The written presentation was just summarized a couple of weeks ago. We are giving you a head's up what we are planning to do.



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Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	These five impacted communities, can they have representatives go to Mary River? When they come here, they are not going to mention anything negative. I've never seen exactly how it looks like, and so we don't have anyone here who can explain things first hand.	We have sent students from Arctic College and Hamlet representatives there. We have brought people from the five impacted communities. I can look into what is possible to have the Hamlet come. When would be the best time for the Hamlet to do this? Maybe not in this meeting but the SAO could advise later when they can go inspect the operation?
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Is this going to be a different mineral and grade than Mary River?	At Eqe Bay there is high grade iron there, and we'll be looking at that, but we will be looking at the entire mineral potential of the area. Right now it is at an early stage, and so we don't have information about the distribution or grade of any mineralization. This is very early stage exploration. We need to do advanced exploration to start to understand the details of that mineralization, including distribution and grade.
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Concerning animals, we are the protector in the past. I haven't been keeping up to speed on activities at Mary River. Eqe Bay is closer to us. I would like to make sure all information on Eqe Bay is sent to the HTA. Please keep us up to date on the activities of Eqe Bay; it is much closer to us.	At Mary River we have field studies each year. We continue our environmental monitoring work looking at the current operation's impacts on the environment. At Eqe Bay we are very sensitive to any interaction we would have with the exploration activities and the wildlife. We would look to engage the communities to understand the interactions of the wildlife in the area.

Baffinland

Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Archaeological sites are important. So are trails for migration routes, and burial sites. There are many sites in that area. Will archaeological work be done before things get started?	Absolutely. We are engaging an archaeologist we have worked with for years. He will conduct surveys as soon as the snow is off the ground, in advance of any detailed ground work. Drilling won't occur until 2019. If there are any sites that are found that need investigation and protection, then we would alter our plans to ensure we don't disturb those features.
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Are you using drills with compressors (air track / downhole hammer drills)?	We will move drills by helicopter initially. Eventually we would like to use drills on tracks, similar to what is on an excavator. We think that will reduce noise disturbance to wildlife. The drills you have in the community to install piles are air track drills. We will use diamond drills.

Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Hall Beach hasn't seen many benefits from the Mary River Project. There is an opportunity to be more involved in this project, which is closer to us. You are looking for approval right away? I feel we have to say yes to your proposal. Our community - there is not enough information presented to the community, and things are rushed. I would like to understand if they are approved? If they do not approve this proposal, we will lose out again. So I would like to understand where the people of Hall Beach and Igloolik will stand on this?	Baffinland is coming today to discuss the Eqe Bay exploration program for the first time. We would like to obtain feedback from the Hamlet and HTA that can be considered in Baffinland's Project Proposal to the Nunavut Impact Review Board. We would like to establish a base of operations at Eqe Bay to advance exploration, since Eqe Bay is about 250 km from Mary River. We are asking to establish a base camp, to give us an opportunity to conduct advanced exploration including drilling. As a comparison to Mary River, they did exploration initially that was staged out of Pond Inlet. Coming to Eqe Bay, we would be looking at engaging the closest communities of Igloolik and Hall Beach to participate in this activity. That's what we are here today for; we are looking to establish a footprint at Eqe Bay project area. The goal of exploration is to find mineralized areas that might have economic potential. In my experience, one of the more prospective areas is Eqe Bay. It might feel like we are rushing things, but we are not looking to rush things.
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Do you know if you can bring a sealift vessel into this area, to make sure you don't run aground? Do you have a contingency plan in case it is too shallow?	We have contracted a company to conduct a bathymetric survey to make sure they can come in with vessels. A contingency plan would be developed by the shipping company contracted by Baffinland.

Baffinland



Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	I like the idea of using a tracked drill instead of helicopter. The heli is too loud. But the drills are also too loud. How much impact to the animals? On Page 9 of the presentation, there is a statement regarding a community vessel. Can you explain? Is a "community vessel" a boat from the community or a sealift vessel from the south?	The first question about the noise from the drill impacting the wildlife: because of the distribution of wildlife, we haven't seen any adverse relationship between the drills and scaring caribou. With respect to a "community vessel", we are referring to a sealift vessel from the south. We are looking at the option of having our own sealift vessel to bring up all the parts of the camp. Or sharing a sealift vessel that also goes to the communities. It depends on the amount of material we need to bring to site and the timing of the vessel trips.
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	On page 11 of the presentation it says that drums were used in the early stage of exploration. Later on, they were using containers. The drums of fuel that were used are stockpiled at the dump now, corroding away. When I was a young man, these were used as fuel drums. It that going to be the same practice for you guys? Are you going to leave the drums there when you switch to containers?	No, we will send the empty drums south afterward. Things are different now; we need to put up reclamation funds ahead of time. Also, our practice now is to remove the drums by backhauling empty drums as well as any other waste we can't incinerate.
Community Engagement Records

Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Personally, I do support this. It will be well managed. For us older people, we will be gone. There will be less hunting. Looking into the future, this looks like a good proposal for job opportunities.			
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Will there be job opportunities for Inuit? Will the QIA be a part of this? Is Eqe Bay part of the Q-STEP program?	The Q-STEP program was established for Mary River, which means that community members from Igloolik and Hall Beach are eligible to apply.		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	The minerals at Eqe Bay, our ancestors knew that there were minerals there. There is also burnable minerals there, like coal. This belongs to our ancestors.	Thank you for your comment.		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	When they were planning Mary River, the people involved in the planning stages are passing away, so we are the ones representing the communities now. I was not happy with the seabed tests.	There won't be any seismic testing at Eqe Bay.		

Community Engagement Records

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Event Type	t Type Event Name Community of Interest Stakeholder Comment		Stakeholder Comment	Baffinland Response		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	When Biogenie were transporting materials across the peninsula, there wasn't any impact. The caribou were just watching. Will there be a road or railway at Eqe Bay?			
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	At Mary River, there is a station looking at narwhal monitoring. They are keeping a close eye on numbers. There are a lot of fish over at Eqe Bay consumed by Igloolik and Hall Beach. Is there going to be a study of fish there, to see if country food will be affected?	There won't be any environmental baseline studies during the early stages of exploration. This would only occur if the exploration program proved to be very positive and becomes more advanced, and the company began to consider the feasibility of a mine.		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	We are always looking for help with search and rescue. I like that you are committed to helping.	Thank you for your comment. No response required.		
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	The route was set to have the shipping done through the eastern side of Foxe Basin. Would you ship through the east side of Foxe Basin for Eqe Bay?	As we are in the early stages of the Program still, we have not determined a final route. If the Program proceeds, we will continue to engage with the community on any issues related to shipping.		

Community Engagement Records

Event Type	Event Name	Community of Interest	Stakeholder Comment	Baffinland Response	
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	If this would proceed, Igloolik and Hall Beach are closest. Would we be the priority in terms of hiring for the project?	Mary River has five impacted communities, and we work with all of those communities to prioritize hiring.	
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	We don't need an answer right now. If Eqe Bay were to proceed, would there be an IIBA?	Yes, there would be an IIBA negotiated only if the program advanced towards mine development; but that possibility is years into the future.	
Community Group Meeting	2018-04-05 Hall Beach Hamlet and HTA Re: Eqe Bay Exploration Program	Hall Beach	Oil residues, make sure the drainage is properly made. Environmentally friendly shops.	Yes, for sure. We will look into efficient management our waste.	



APPENDIX B PHOTO LOG

Eqe Bay Exploration Program | 2018 NIRB Annual Report | March 2019



Photo B.1 - Aerial of Eqe Bay Exploration Area, looking north



Photo B.2 - Aerial of Eqe Bay Exploration Area, looking south



Photo B.3 - Approximate camp location, looking northeast



Photo B.4 - Approximate camp location, looking south



Photo B.5 - April 6 Hamlet of Igloolik community meeting



APPENDIX C 2018 AQUATIC SURVEY

Eqe Bay Exploration Program | 2018 NIRB Annual Report | March 2019



Subject:Preliminary Survey of Fish Distributions for the Eqe Bay Exploration
Program

To:	William Bowden Baffinland Iron Mines Corporation Environmental Superintendent 2275 Upper Middle Road East, Suite 300 Oakville, ON L6H 0C3	
From:	North/South Consultants Inc. 83 Scurfield Blvd. Winnipeg, MB R3Y 1G4	
Date:	February 22, 2019	

1.0 INTRODUCTION

This Technical Memorandum (TM), prepared at the request of Baffinland Iron Mines Corporation (BIM) presents the results of a preliminary assessment of fish population distributions in freshwater habitat near a planned mineral exploration camp at Eqe Bay, Baffin Island. Mineral deposits near Eqe Bay have been licensed by BIM and a proposed exploration camp is needed to support geological, environmental, and archaeological baseline studies of the area.

Preliminary plans for the exploration program include construction of the exploration camp and airstrip between Eqe Bay to the east and a large unnamed lake (EB-1) to the west (Figure 1). The lake would also serve as the camp water supply. An approximately 10 km-long access road will connect the camp with the deposit(s). The objective of the 2018 field survey was to identify fish presence/absence in streams crossed by the access road or potentially affected by camp infrastructure.

2.0 METHODS

A one-day fish survey of the Eqe Bay exploration camp area was conducted on August 29, 2018. Preliminary fish presence/absence was determined through observation of aquatic habitat in all streams, ponds, and lakes potentially affected by camp construction and operation. Observed fish were identified to species and assigned an approximate range of lengths. Aquatic habitat characteristics (morphology and substrate) were assessed for all confirmed or potentially fish-bearing waterbodies. In fishless waterbodies an attempt was made to identify potential barriers to movement that may prevent access from overwintering habitat.

3.0 KEY FINDINGS AND RESULTS

The results of the 2018 field survey indicate use of Lake EB-1 by anadromous Arctic Char (*Salvelinus alpinus*) from Eqe Bay is unlikely based on the habitat characteristics of the stream connecting the lake and bay (i.e., southeast stream that flows from the lake to the bay). This stream was too shallow for adult char use and may also have vertical barriers to movement. High tide is unlikely to improve access. Therefore char in the catchment of Lake EB-1 are expected to be land-locked.

Adult Ninespine Stickleback (*Pungitius pungitius*) were observed along the shoreline of Lake EB-1 and, though none were observed in the lake in 2018, a resident char population is suspected based on the presence of juveniles in tributary streams and lake depths that appear to be sufficient (from aerial observations) for overwintering.

The ponds adjacent to the east and southeast shores of Lake EB-1 (Figure 1; Table 1) provided rearing habitat for young-of-the-year (YOY), and potential spawning habitat for adult, Ninespine Stickleback. Three of these ponds were surveyed in 2018 (see circled area in Figure 1). The ponds were shallow (generally <0.05 m) with loosely compacted organic/silt substrate and abundant aquatic vegetation. Figures 2-4 show Lake EB-1 and surrounding areas.

The proposed access road alignment would cross or encroach upon five waterbodies (Figure 1; Table 1). Stream EBS-01 to the north of the proposed camp appears to be the major inflow to Lake EB-1. Large numbers of juvenile char, ranging in size from approximately 90-150 mm, and at least one adult stickleback were observed throughout the stream. Habitat near the potential crossing was riffle/pool with a predominantly cobble/gravel substrate (Figures 5-7). Near its downstream confluence with Lake EB-1, stream habitat was shallow pool with mostly fine (silt/sand) substrate (Figures 8-9).

Crossing EBS-02 is an area of marshy, hillside habitat with three main channels flowing downstream into Lake EB-1 along its north shore (Figures 10-12; Table 1). Large numbers of juvenile and adult stickleback were observed in all three main channels. Habitat at the time of the survey was primarily shallow, riffle/pool with silt/organic substrate and occasional patches of gravel. Algae and flooded terrestrial vegetation (grasses) were abundant. There was no evidence of char use of this habitat, though no barriers to movement were observed. The site is considered to be potential char habitat.

Crossing EBS-03 was similar to EBS-02 (marshy hillside habitat with a few main channels flowing downstream) but there was no evidence of fish use (Table 1). A suspected vertical barrier near the lake confluence and very low water likely prevented access in 2018. Additional surveys will be required to confirm a lack of fish under all flows conditions and across seasons. The site is considered to be potential char habitat.

Site EBS-04 is located at an interconnected series of ponds and streams that flow into a small, unnamed lake west of Lake EB-1 (Figure 1; Table 1). The current road alignment would not result in any footprints in these waterbodies; however, this area was surveyed as it is adjacent to the current alignment. There was no upstream connectivity to large lakes in the region observed during the field survey. This watershed

may flow downstream into Harbour Bay, but low water levels likely restricted use to freshwater char populations and/or rearing anadromous juveniles in 2018. Stickleback and YOY char were observed in the largest of the interconnected ponds. Habitat was primarily pool with occasional riffles and fines/gravel/cobble substrate.

Site EBS-05 is a broad, shallow wetted area south of an unnamed lake (Lake EB-2) that has been proposed as a potential drill water source (Figure 13; Table 1). Flows were negligible and fish likely only have access to this stream from Lake EB-2. Three juvenile char (90-110 mm) were observed in this area, though observations were made more difficult by the abundance of available cover. Habitat was primarily pool with large cobble and boulders (Figures 14-16). The char in this stream appeared to have darker colouration than those in other surveyed waterbodies.

Table 1.Site survey information for the 2018 Eqe Bay Exploration Program.

Site	UTM Coordinates			Time	Doto	Fish Presence	
	Zone	Easting	Northing	Time	Date	ARCH	NNST
Ponds	18W	434815	7726488	10:00	29-Aug-2018	Unlikely	Yes
EBS-01	18W	435232	7727095	10:45	29-Aug-2018	Yes	Yes
EBS-02	18W	434394	7727974	12:00	29-Aug-2018	Potential	Yes
EBS-03	18W	433453	7728495	12:55	29-Aug-2018	Unlikely	Unlikely
EBS-04	18W	431206	7729089	13:30	29-Aug-2018	Yes	Yes
EBS-05	18W	430209	7728505	14:10	29-Aug-2018	Yes	Potential

ARCH = Arctic Char; NNST = Ninespine Stickleback



Figure 1. Map of the Eqe Bay Exploration Program area and 2018 survey sites.



Figure 2. Shoreline of Lake EB-1 with adjacent shallow ponds.



Figure 3. Shoreline of Lake EB-1.



Figure 4. View of Lake EB-1 and stream crossed by EBS-01.



Figure 5. Substrate in stream near the proposed access road crossing EBS-01.



Figure 6. View upstream from the proposed access road crossing area at EBS-01.



Figure 7. View downstream from the proposed EBS-01 access road crossing.



Figure 8. View upstream in stream EBS-01 near the confluence with Lake EB-1.



Figure 9. View downstream in stream EBS-01 near the confluence with Lake EB-1.



Figure 10. Substrate in stream EBS-02.



Figure 11. View upstream near the proposed access road crossing EBS-02.

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Figure 12. View downstream near the proposed access road crossing EBS-02.



Figure 13. View of site EBS-05 near the confluence with Lake EB-2.



Figure 14. Substrate near the proposed access road crossing EBS-05.



Figure 15. View of EBS-05 looking towards the nearby lake.



Figure 16. View of EBS-05 looking upstream.



APPENDIX D HELICOPTER FLIGHT PATH MAPS

Eqe Bay Exploration Program | 2018 NIRB Annual Report | March 2019



