

NUNAVUT WATER BOARD PUBLIC HEARING

NWB LICENCE NUMBER 2AM-MRY

MARY RIVER PROJECT TYPE "A" WATER LICENCE APPLICATION

BY BAFFINLAND IRON MINES CORPORATION

HEARING HELD AT ATAKAALIK (POND INLET) COMMUNITY HALL

POND INLET, NUNAVUT

APRIL 23, 2013

1 APPEARANCES:

4 NUNAVUT WATER BOARD PANEL (NWB):

6 Mr. T. Kabloona Chair
7 Mr. D. Aglukark, Sr. Member
8 Mr. R. Mrazek Member
9 Mr. J. Pameolik Observer

12 NUNAVUT WATER BOARD STAFF:

14 Mr. D. Cote Executive Director
15 Mr. D. Hohenstein Director of Technical Services
16 Mr. B. Kogvik Secretariat, Interpreter/Translator
17 Mr. S. Joseph Technical Advisor
18 Ms. M. Porter Licencing Administrative Assistant
19 Ms. T. Meadows Legal Counsel

22 NUNAVUT IMPACT REVIEW BOARD (NIRB):

23 Ms. A. Hanson Director of Technical Services
24 Ms. J. Dhillon Technical Advisor

1 APPLICANT:

2
3 BAFFINLAND IRON MINES CORPORATION (BIMC)

4 Mr. E. Madsen Vice President, Sustainability,
5 Environment, Health and Safety

6 Mr. O. Curran Director, Sustainable Development

7 Mr. J. Millard Senior Environmental Superintendent

8 Mr. F. Beaulac Senior Environmental Engineer

9 Mr. G. Missal Vice President Corporate Affairs

10 Mr. B. Armstrong Legal Counsel

11
12 INTERVENERS:

13
14 NUNAVUT TUNNGAVIK INC. Irngaut (NTI)

15 Mr. A. Itorcheak Policy Analyst

16 Mr. P. Irngaut Wildlife Communications Advisor

17
18 ABORIGINAL AFFAIRS AND NORTHERN DEVELOPMENT CANADA (AANDC)

19 Ms. K. Costello Director of Resource Management

20 Mr. M. Ball Manager of Water Resources

21 Mr. K. Landa Legal Counsel

22
23 QIKIQTANI INUIT ASSOCIATION (QIA)

24 Mr. S. Williamson Bathory

25 Mr. S. Awa

26 Mr. J. Van Gulck

1 ENVIRONMENT CANADA (EC)

2 Ms. A. Wilson Environmental Protection Operations

3 Mr. M. Dahl Environmental Protection Operations

4

5 DEPARTMENT OF FISHERIES AND OCEANS CANADA (DFO)

6 Ms. G. Williston Fisheries Protection Biologist

7

8 NATURAL RESOURCES CANADA (NRCan)

9 Ms. K. Cavallaro Senior Environmental

10 Assessment Officer

11 Dr. J. Kwong Senior Environmental Scientist

12

13 GOVERNMENT OF NUNAVUT (GN)

14 Ms. C. Kieu Legal Counsel

15 Ms. N. Erkloo Acting Director of Community

16 Economic Development & Transportation

17 Mr. P. Suvega Associate Deputy Minister of

18 Economic Development & Transportation

19

20 INTERPRETERS/TRANSLATORS (INUKTITUT LANGUAGE):

21 Mr. M. Arnakallak

22 Mr. B. Kogvik

23 Mr. J. Nutarak

24

25 Mr. N. Poitras Sound Technician

26 Ms. K. Schumann, CSR(A) Court Reporter

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1 (PROCEEDINGS COMMENCED AT 9:15 AM)

2 THE CHAIR: Good morning. Mr. Mayor will
3 give the welcoming remarks from Pond Inlet.

4 MAYOR'S WELCOME:

5 MR. KILLIKTEE: Good morning. Thank you.

6 First of all, I'd like to welcome the Nunavut
7 Water Board committee. Welcome to the community; we're
8 glad that you were able to make it to the community. I
9 don't think I had introduced myself; I'm Jaykolasie
10 Killiktee, the Mayor of Pond Inlet. Welcome. We were
11 expecting you and waiting for you. We had asked this
12 early spring that the -- if the Nunavut Water Board
13 could hold another hearing, and you're in the
14 community, and we're very glad for that. Can you guys
15 hear me okay? And we had been expecting your arrival.
16 Welcome to the community.

17 Pond Inlet is very scenic, and you don't want to
18 just have meetings with the weather outside. It's very
19 nice for hunting, fishing, or to go look for seals.
20 Welcome all, and all of you welcome, especially
21 Baffinland; we're glad that they do come to the
22 community, and they do explain what is happening as
23 their project progresses.

24 Welcome all, and the invited guests from Arctic
25 Bay, Clyde River, Igloolik, and Hall Beach, and other
26 communities. We welcome all of you, and we'd like you

1 to feel welcome in the community. And my fellow Pond
2 Inlet community members, welcome all. I am glad that
3 you were able to be here, and we do want more people
4 from the community during this hearing from the Water
5 Board.

6 We Pond Inlet people have been greatly affected by
7 Baffinland, and for that reason, we want the
8 negotiations to go through safely, so that Baffinland,
9 if it's up and running, will be able to operate safely.

10 And all invited delegates, welcome all. It takes
11 a very long time to get up here by airplane, but we're
12 glad that you were able to make it. Welcome all here
13 at Pond Inlet, and I hope you'll have a safe stay here
14 in the community. Welcome all. Thank you all. We
15 invite everyone to feel welcome to the community along
16 with our community members. Pond Inlet is welcoming
17 and very scenic.

18 Thank you, Mr. Chair.

19 THE CHAIR: The audio equipment has not
20 been working. Once we get it fixed, we'll go ahead.
21 Perhaps we'll wait a few minutes for the audio
22 equipment to start working, and then we can begin.

23 (ADJOURNMENT)

24 THE CHAIR: Sorry, we're experiencing
25 technical difficulties.

26 (ADJOURNMENT)

1 OPENING REMARKS BY NWB BOARD CHAIR:

2 THE CHAIR: I believe we are ready to roll
3 again.

4 Thank you, my name is Thomas Kabloona, and I am
5 the Chair of the Nunavut Water Board (or as we are
6 often referred to as the "Board" or "NWB"). I would
7 like to welcome everyone to the Nunavut Water Board's
8 public hearing regarding the Baffinland Iron Mines
9 Corporation's Type "A" water licence application for
10 the Mary River Project.

11 Before we get too far into the proceedings today,
12 I have asked Olayuk Naqitarvik to do the opening
13 prayer.

14 (OPENING PRAYER)

15 OPENING REMARKS BY NWB BOARD CHAIR:

16 THE CHAIR: Thank you, Olayuk.

17 Before I move on to an overview of this
18 application and what to expect at this public hearing,
19 there are some important housekeeping items for
20 everyone here.

21 Firstly, there will be interpretation available
22 throughout the hearing, and earpieces are available
23 from the table at the back of the hall. Channel 1 is
24 English, and Channel 2 is Inuktitut.

25 Secondly, the Board appreciates if everyone signs
26 in on the sign-in sheet located at the table at the

1 back of the hall; this is an important record of the
2 hearing, and we appreciate your help in making sure it
3 is complete.

4 The washrooms are located just through the doors
5 to my left, the exits are located in front and back of
6 the hall, there will be coffee, tea, and snacks located
7 at the tables at the back of the hall during breaks.

8 I would like to remind everyone to please turn off
9 your cell phones before we begin. Thank you.

10 Now, to give you some background to this hearing,
11 the Nunavut Water Board is an institution of public
12 government created under Article 13 of the Nunavut Land
13 Claims Agreement and is responsible for the use,
14 management, and regulation of fresh water in the
15 Nunavut Settlement Area.

16 The purpose of this public hearing is to review
17 the Type "A" water licence application filed by
18 Baffinland Iron Mines Corporation's (Application) for
19 the Mary River Project in accordance with the Nunavut
20 Land Claims Agreement and the Nunavut Waters and
21 Nunavut Surface Rights Tribunal Act.

22 Under Section 13.3.6 of the Nunavut Land Claims
23 Agreement and Section 29 of the Nunavut Waters and
24 Nunavut Surface Rights Tribunal Act, the Board has
25 delegated its power to dispose of all matters relating
26 to this application, including the conduct of this

1 public hearing, to a panel of the Board.

2 I am the Chair of the Board and the Mary River
3 Panel, and I would like to introduce my fellow Panel
4 Members who are with me today and share in the
5 responsibility to consider the evidence presented at
6 this public hearing and make a decision regarding this
7 water licence application.

8 To my left is David Aglukark, Senior, from Arviat,
9 and to my right is Ross Mrazek from Edmonton. Also
10 accompanying us today to learn about the Board's
11 hearing process is one of our newest Board members,
12 Joseph Pameolik, who is participating only as an
13 observer. Joseph, are you there? Thank you.

14 In addition, the Board has with it several Staff
15 members who have been involved in the technical review
16 and administration of this licence application. When I
17 say their name, I ask that Staff wave so that people
18 can see them: Damien Cote, the Board's Executive
19 Director; David Hohenstein, the Board's Director of
20 Technical Services; Ben Kogvik, the Board's Secretariat
21 and Interpreter/Translator; Sean Joseph, Technical
22 Advisor; Megan Porter, Licencing Administrative
23 Assistant; Teresa Meadows, with Miller Thomson, Legal
24 Counsel to the Board.

25 In addition, we have the following additional
26 interpreters available for simultaneous interpretation:

1 Ben Kogvik; number 2, Philip Paneak; number 3, Morgan
2 Arnakallak.

3 To ensure an accurate record of the proceeding, we
4 will be keeping a transcript of these proceedings, and
5 to assist us with that, we have a court reporter,
6 Karoline Schumann, present. To assist the court
7 reporter, I ask that all parties please use a
8 microphone, state their name before speaking, speak
9 clearly, and speak slowly.

10 Assisting us with our sound system,
11 interpretation, and recording, we have Norbert Poitras
12 from Pido Productions. If you have trouble hearing
13 through the headsets or speakers, please let Norbert
14 know.

15 At the pre-hearing conference the NWB held in
16 January, the Board's Staff were advised that Pond Inlet
17 was the most appropriate place to hold this public
18 hearing, but it was also identified that the
19 communities of Hall Beach, Arctic Bay, Igloolik, and
20 Clyde River may also be potentially affected by the
21 activities and facilities included in this application.
22 So to ensure that the Board considers the concerns,
23 questions, and issues from these communities as well,
24 the Board invited five members from each community,
25 representing Elders, the local hunters and trappers
26 organization, youth, women, and the hamlet attend this

1 hearing.

2 On behalf of the Board, I wish to extend our
3 thanks to all the community representatives who have
4 taken time out to join us here, as well as the
5 residents of Pond Inlet. We look forward to hearing
6 your perspectives and having the parties answer your
7 questions. If you have questions for the NWB regarding
8 your participation in the process, please speak to Ben
9 Kogvik or Megan Porter.

10 Although the Nunavut Water Board has not received
11 any requests from the media to attend this hearing, the
12 Board advises everyone that the media may be in
13 attendance at the hearing. The Board does ask that
14 anyone from the media please identify themselves as
15 members of the media to the Board Staff, sign in on the
16 sign-in sheets, and wear your media identification
17 throughout so that all participants know who you are.
18 Any media attending this hearing are advised that they
19 must take steps to avoid being a distraction or
20 otherwise interfering with the hearing or with the
21 participation of people at the hearing and that failing
22 to abide by this rule may result in the Board asking
23 you to leave.

24 Reminder to the audience: I also want to remind
25 the media and everyone present at the hearing today
26 that the Board members and Staff cannot and will not

1 take questions or provide comments to the media, the
2 parties, or anyone else regarding the application
3 before the Board until the Board makes its decision
4 regarding the licence application and releases its
5 written decision, record of proceedings, and, if the
6 Board recommends that a licence be granted, a draft
7 licence.

8 In the past, parties in other proceedings have
9 approached the media prior to the release of the
10 Board's decision report, making comments about what
11 they believe the Board is going to do. Since the Board
12 cannot comment on pending matters, either by confirming
13 or denying the accuracy of the statement of others, the
14 Board asks that, in the interests of fairness, all
15 parties refrain from making these types of comments or
16 implying a certain course of action by the Board.

17 If you have general questions about the Board and
18 its practice or procedure, please speak to the Board's
19 Executive Director, and he will assist you.

20 Before we introduce all of the other parties in
21 attendance today, I will provide a brief overview of
22 the application that is before the Board and provide a
23 very quick review of the procedural history of the
24 application that describes the steps that have taken
25 place leading to this public hearing.

26 As I've said, the Board is here to consider an

1 application by Baffinland Iron Mines Corporation (BIMC)
2 for a 25-year Type "A" water licence to use water and
3 to deposit waste in support of the proposed Mary River
4 Iron Mine Project. The Mary River mine will be located
5 approximately 160 kilometres south of Pond Inlet on
6 northern Baffin Island within the Qikiqtani Region of
7 Nunavut.

8 As many of you who attended the Nunavut Impact
9 Review Board's impact assessment final hearing for the
10 project last July already know the Mary River Project
11 involves the development of an open-pit iron mine and
12 associated infrastructure to support the extraction of
13 ore from the deposit identified as "Deposit No. 1".
14 There are several other deposits near the mine site;
15 however, these deposits are NOT being considered under
16 the current water licence application.

17 Based on the rate of extraction proposed by BIMC
18 at the Impact Review Board hearing (estimated to be 18
19 million tonnes each year), the operations phase of the
20 project is expected to last approximately 21 years.
21 Given the high quality of the ore, it does not need to
22 be processed and is only crushed and screened before
23 being shipped to markets in Europe. As a result, there
24 will be no tailings produced by the mine, and the water
25 licence application does NOT include a tailings storage
26 pond or other tailings facility.

1 The total life of the project is estimated at
2 33 years, which can be broken down as follows:
3 4 years - construction phase; 21 years - operation
4 phase; 3 years - closure phase; and 5 years -
5 post-closure monitoring phase (could potentially be
6 extended if remediation objectives are not met during
7 this proposed time frame).

8 The Applicant, BIMC, has an existing Type "B"
9 water licence 2BB-MRY1114 that authorized various
10 activities and facilities associated with BIMC's
11 advanced exploration and bulk sampling program. BIMC
12 has proposed that several of these activities and
13 facilities would be included under this Type "A" water
14 licence application. In addition, the Type "A" water
15 licence application will also include new facilities
16 and activities associated with the major project
17 components that were not previously authorized under
18 the Type "B" licence, including a proposed
19 150-kilometre railway connecting the mine site to
20 Steensby Port and upgrades to the existing Milne Tote
21 Road.

22 At Milne Port site, BIMC is seeking authorization
23 for activities and facilities under the water licence
24 such as the following: Water supply from Philips Creek
25 and 32km Lake; sewage treatment facilities for a camp;
26 oily water treatment facility; landfarm facility and

1 waste transfer areas; incinerator; storage and
2 management of hazardous materials; and fuel tank farm
3 and fuel dispensing area.

4 At the mine site, the following activities and
5 facilities are included under the application: Water
6 supply from Camp Lake; sewage treatment facilities for
7 three exploration, construction, and permanent mining
8 camps; oily water treatment facilities; explosives
9 storage and explosives manufacturing facilities; waste
10 sorting facility, temporary storage facilities, and
11 management of hazardous wastes; a fuel tank farm and
12 fuel dispensing area; landfill and landfarm facilities;
13 incinerator; and waste rock stockpile and waste rock
14 disposal.

15 At Steensby Port site, the following activities
16 and facilities are included in the application: Water
17 supply from 3km and 10km Lakes; sewage treatment
18 facilities for construction and permanent port camps
19 (three camps); oily water treatment facilities;
20 explosives storage and explosives manufacturing
21 facilities; fuel tank farm and fuel dispensing areas;
22 waste sorting facility and temporary storage facilities
23 for hazardous wastes; landfill and landfarm facilities;
24 incinerator; and ore stockpile runoff management.

25 The application also included the following
26 activities and facilities associated with railway

1 construction: Water supply for each of four
2 construction camps; sewage disposal via
3 trucks/helicopters for each proposed camp; development
4 of quarries; construction of two tunnels; construction
5 of 31 bridges (including seven major bridges that are
6 over 100 metres in length); over 200 culvert crossings;
7 waste disposal for each proposed camp; incineration of
8 waste at each proposed camp; and secondary containment
9 for fuel storage and hazardous materials (if any) at
10 each camp location.

11 The following water crossings are also included in
12 the scope of the application: Watercourse crossings,
13 including pipelines, bridges, and roads; watercourse
14 training, including channel and bank alterations,
15 culverts, spurs, erosion control, and artificial
16 accretion; flood control; diversions; and alterations
17 of flow or storage by means of dykes or dams.

18 If you are interested in reviewing the application
19 and associated documentation in detail, please speak
20 with Megan Porter at the back of the hall or one of the
21 Board's other Staff. They would be happy to assist you
22 in looking through an electronic or hard copy of these
23 documents.

24 As many of you know, in January, BIMC requested an
25 amendment to the Nunavut Impact Review Board (NIRB)
26 project certificate to allow for the project to be

1 developed in a different way than was approved by the
2 NIRB under the project certificate. However, BIMC made
3 it clear that while the NIRB's consideration of the
4 amendment to the Project Certificates continues, BIMC
5 will continue to seek the regulatory permits and
6 authorizations consistent with the original project as
7 reviewed by the NIRB and authorized by the
8 current project certificate. BIMC's request to the
9 NIRB does not, therefore, affect the NWB's jurisdiction
10 to review the existing Type "A" water licence
11 application as authorized under the current project
12 certificate, and the existing application is the only
13 focus of this hearing. As a result, at this hearing,
14 the Board will not be considering or discussing the
15 changes to the project proposed by BIMC in January.

16 As most of you know, the Nunavut Impact Review
17 Board (NIRB) conducted the overall environmental
18 assessment of the Mary River Project, including a final
19 hearing conducted by the NIRB in July last year. As
20 part of that process, the NWB and the NIRB agreed to,
21 where possible, coordinate the NIRB's review process
22 with the NWB's water licencing process.

23 In keeping with the spirit of coordination and
24 cooperation and the NIRB's ongoing responsibilities
25 under the project certificate, the NIRB's Director of
26 Technical Services, Amanda Hanson, and Technical

1 Advisor, Jaswir Dhillon, are in attendance at this
2 hearing to provide the NWB with assistance and support
3 during the NWB licencing process, just as Sean Joseph,
4 the NWB's Technical Advisor, provided technical support
5 to the NIRB during their final hearing.

6 However, it is important to remember that even
7 under the coordinated process, both the NIRB and the
8 NWB conduct their own public hearings and engage in
9 their own decision-making. The fact that NIRB approved
10 the Mary River Project to proceed and issued a project
11 certificate does not affect the NWB's jurisdiction to
12 ultimately decide whether a water licence should be
13 granted to the Applicant based on this public hearing.

14 I would now like to give a brief overview of the
15 procedural history of the file before turning to
16 details regarding this hearing.

17 Reflecting the coordination between the NIRB
18 process and the water licencing process, on
19 February 11th, 2011, the NWB received the draft
20 Type "A" water licence application from BIMC that
21 triggered the NWB's involvement as part of the much
22 broader draft environmental impact statement (also
23 referred to as an "EIS") submitted to the NIRB for the
24 Mary River Project. As part of the technical review of
25 the draft EIS, in the spring of 2011, the parties
26 commented on and provided information requests

1 regarding the water licence application, and BIMC
2 responded to those comments and information requests as
3 part of the NIRB review process.

4 In late April and early May 2011, the NWB
5 Technical Staff attended public information meetings
6 organized by the NIRB about the draft EIS that were
7 held in the communities of Clyde River, Pond Inlet,
8 Arctic Bay, Resolute Bay, and Grise Fiord, and the NWB
9 listened to comments and answered questions regarding
10 the water licencing aspects of the Mary River Project.

11 In October 2011, the NWB's Staff completed the
12 technical review of the draft Type "A" water licence
13 application that accompanied the draft EIS and provided
14 the Board's comments to the NIRB and participated in
15 the NIRB technical meetings held in Iqaluit for the
16 Mary River Project draft EIS. In November 2011, the
17 NWB attended the NIRB's pre-hearing conference for the
18 Mary River Project that was held in Igloolik and Pond
19 Inlet. In December 2011, the NIRB issued its
20 pre-hearing conference decision report that contained,
21 in an appendix to the report, the NWB's concordance
22 assessment and technical review comments for the draft
23 Type "A" water licence application that was attached to
24 the draft EIS.

25 In February 2012, the NWB received, as an appendix
26 to the final environmental impact statement (final EIS)

1 for the Mary River Project, the finalized Type "A"
2 water licence application that is subject of this
3 hearing.

4 Although some of the supporting information for
5 the application was provided throughout the final EIS,
6 the majority of the water licencing information was
7 provided in Appendix 3B of the final EIS, which
8 included an executive summary (English and Inuktitut),
9 an application form, the processing fee for the
10 application, and supporting technical information.

11 There were also numerous management plans provided
12 as part of the application, such as: Emergency
13 response and spill contingency plans; oil pollution
14 emergency plans; surface water and aquatic ecosystems
15 management plan; freshwater supply, sewage, and waste
16 water management plan; waste management plan; waste
17 rock management plan; hazardous material and hazardous
18 waste management plan; environmental monitoring plan;
19 environmental protection plan; preliminary mine closure
20 and reclamation plan; quarries operations and
21 management plan for various sites; and explosives
22 management plan.

23 Last year in April, the NWB issued its
24 completeness review for the BIMC's final Type "A" water
25 licence application and asked parties to undertake
26 their technical review of the application.

1 By the end of June 2012, technical review comments
2 regarding the water licence application were received
3 from the Qikiqtani Inuit Association, Aboriginal
4 Affairs and Northern Development Canada, Environment
5 Canada, and Fisheries and Oceans Canada. In July 2012,
6 the NWB's Technical Staff participated in the NIRB's
7 final hearings for the Mary River Project held in
8 Iqaluit, Igloolik, and Pond Inlet.

9 In September 2012, the NIRB released its public
10 hearing report for the Mary River Project and
11 recommended to the Minister that the project be allowed
12 to proceed to the licencing stage. In October 2012,
13 the NWB held a preliminary technical meeting by
14 teleconference with the parties, primarily aimed at
15 further defining the outstanding regulatory and
16 technical issues related to the application.

17 In December 2012, the Minister of Aboriginal
18 Affairs and Northern Development Canada (AANDC), the
19 lead Minister for the file, accepted the NIRB's report
20 and recommendations and indicated that the Mary River
21 Project could now proceed to the licencing stage. Also
22 in December 2012, the NWB advised the public and the
23 parties that the NWB would be holding a technical
24 meeting/pre-hearing and pre-hearing conference for the
25 water licence application in Pond Inlet on January 16th
26 and 17th, 2013, and the NWB attended the NIRB's project

1 certificate workshop in Iqaluit where all the
2 regulators and the project Proponent met to discuss the
3 implementation of the recommended terms and conditions
4 in the NIRB's project certificate applicable to the
5 project.

6 On January 16th and 17th of this year, the NWB
7 Staff hosted a technical meeting and pre-hearing
8 conference in order to discuss all the technical review
9 comments provided to the Board up until that time and
10 to identify the technical and procedural issues that
11 remained outstanding with respect to the application.
12 It should be noted that the Board Members do not attend
13 or participate in these types of technical and
14 pre-hearing sessions, but this Panel was briefed by the
15 Technical Staff on the results of the meetings and the
16 recommendations resulting from these sessions. This
17 information was relied on by the Board in the
18 preparation of the pre-hearing conference decision that
19 summarizes the results of these meetings and was issued
20 on January 25, 2013.

21 In the pre-hearing conference decision, the Board
22 identified that the following issues would be discussed
23 in the final written submissions by the parties and at
24 this hearing: 1) Term of the Type "A" water licence;
25 2) Type and amount of security to be held under the
26 Type "A" water licence; 3) Status of water user

1 compensation negotiations/agreements; 4) Construction
2 of facilities and infrastructure; 5) Geotechnical and
3 permafrost issues; 6) Water use; 7) Water quality; 8)
4 Water management; 9) Waste management; 10)
5 Geochemistry; 11) Management plans; 12) Contingency
6 planning; 13) Monitoring; 14) Closure and reclamation;
7 and 15) Other issues as may be identified by the
8 parties or the public at this hearing.

9 Following the pre-hearing conference, the Board
10 issued official notice of this public hearing on
11 February 1st, posting notice of the hearing in the
12 paper, in the Hamlet offices, in the community of Pond
13 Inlet, and by television and radio notices.

14 On March 22, final written submissions about the
15 application were filed with the Board by the Qikiqtani
16 Inuit Association, Aboriginal Affairs and Northern
17 Development Canada, Environment Canada, Fisheries and
18 Oceans Canada, and Natural Resources Canada. On
19 April 5, BIMC provided its final written submissions,
20 including responses to the final written submissions of
21 the other parties.

22 Which takes us to today's proceedings, the Nunavut
23 Water Board public hearing regarding the Baffinland
24 Iron Mines Corporation's Type "A" water licence
25 application for the Mary River Project.

26 There are copies of the agenda for the hearing

1 available at the back table.

2 This hearing is scheduled for today, tomorrow, and
3 Thursday, and, unless I advise otherwise, we will start
4 every day at 9:00 AM sharp and go through to 5:00 PM,
5 with at least one refreshment break in the morning, an
6 hour for lunch around noon, and another refreshment
7 break in the afternoon/health breaks. In addition to
8 these breaks, there may also be short breaks as the
9 Board requires, and I will advise you of these. Please
10 respect the timelines I've set for breaks and return
11 promptly to the hearing; we have a lot to cover, and
12 the Board cannot wait for late arrivals.

13 With respect to the evening sessions, tonight
14 there is an informal community session scheduled from
15 7:00 to 9:30 PM, and the agenda for that is also on the
16 back table. Depending on how the hearing is
17 proceeding, we may have to have an evening session or
18 continuation of the community session tomorrow evening,
19 and I will let everyone know by the middle part of the
20 afternoon tomorrow and Thursday if evening sessions
21 will be required.

22 The hearing will proceed with presentation by the
23 Applicant, questions from the parties, community
24 representatives, the public, the Board Staff and the
25 Board Members, then presentations by the interveners
26 around the table, followed by questioning of those

1 parties as well.

2 Before I turn to the roll call, in order to ensure
3 that everyone has a reasonable opportunity to
4 participate in this public hearing, the Board requests
5 that everyone respect the following Board directions:

6 1) Before the Applicant and the interveners
7 provide spoken testimony, they must swear or affirm
8 their evidence, and our legal counsel, Teresa Meadows,
9 will administer the necessary oath. Please note that
10 members of the public and Elders do not need to take an
11 oath to provide their comments to the Board.

12 2) It is our tradition to give respect to our
13 Elders; therefore, at any time during the proceedings,
14 we invite Elders who are present to indicate to the
15 Board's Staff that they wish to speak. So that we have
16 a complete record of the comments provided, I do ask
17 that Elders wait until the Board gets a microphone to
18 them before they speak, and we ask that the Elders,
19 like all other speakers, state their name for the
20 record before speaking.

21 3) The agenda provides an indication of the time
22 given to each of the listed participants to provide
23 their presentations. The Board asks parties to keep to
24 their allotted time; as you can see from the agenda, we
25 have a very busy schedule ahead in the next few days,
26 and if one party ends up taking much more time than

1 we've scheduled, it could affect the opportunity of
2 other participants. The Board will be monitoring the
3 use of time, and we will do what we can to modify
4 timelines as needed, but please start by observing the
5 time limits in the agenda, or the Board may have to
6 impose further limits.

7 4) For all participants, please do not interrupt
8 when a person is speaking. As set out in the agenda,
9 there will be an orderly opportunity given to everyone
10 to ask questions when speakers have concluded their
11 presentations.

12 5) For the ease of our court reporter and our
13 interpreters, please speak clearly and do not use
14 abbreviations and acronyms; and be mindful that our
15 interpreters may require extra time to explain some
16 terms in detail, so please be aware of the interpreters
17 and pause when it appears they need time to explain
18 what you are saying.

19 6) For the benefit of all the participants here, I
20 am reminding you all again to please turn your cell
21 phones and electronic devices off, or at least to the
22 "vibrate" or "silent" setting.

23 The Board appreciates everyone's contribution to a
24 respectful and productive public hearing.

25 ROLL CALL:

26 THE CHAIR: If there are no concerns, I

1 would like to move forward to a roll call. I will
2 begin the roll call with the Applicant, Baffinland Iron
3 Mines Corporation, if you can please introduce the
4 personnel who will be representing you at the hearing.

5 MR. MADSEN: Good morning, Mr. Chairman.
6 It's Erik Madsen, Vice President Sustainable
7 Development, with Baffinland.

8 I'll provide a list of the people that will be
9 presenting or answering questions throughout these
10 hearings. It will be myself; Oliver Curran, Director
11 Sustainable Development; Jim Millard, Senior
12 Environmental Superintendent; Greg Missal, Vice
13 President Corporate Affairs; Fernand Beaulac, our
14 Senior Environmental Engineer; Richard Cook, our Senior
15 Consultant with Knight Piesold; Christine Moore, Senior
16 Consultant with Intrinsik Environmental; and Brad
17 Armstrong, Legal Counsel; and Christine Kowbel, Legal
18 Counsel.

19 THE CHAIR: Thank you. Next, we have
20 Nunavut Tunngavik Incorporated.

21 MR. ITORCHEAK: Yes, my name is Adla
22 Itorcheak from NTI, Nunavut Tunngavik Incorporated.

23 THE CHAIR: Thank you. Qikiqtani Inuit
24 Association.

25 MR. AWA: Thank you, Mr. Chairman. I am
26 Solomon Awa. I work for QIA regarding Baffinland. We

1 are here with Enookie Inaurak, member of the committee
2 here in Pond Inlet, and our QIA employee, David
3 Kamino (phonetic), and our QIA employee from Iqaluit
4 who will be assisting us with these meetings, Marie,
5 she's here with us, and our QIA manager, Steve Bathory,
6 and QIA's language technical guy, Jamie, and he's here
7 with us also.

8 And, Mr. Chair, here in Pond Inlet, they have a
9 meeting, the Baffinland project committee, which I will
10 go into more detail later. The Baffinland project
11 committee are composed of Jayko Alooloo, he is the
12 chair, along with Joe Inashook, who is the vice-chair,
13 Cornelius Nutarak, Elijah Panipakoocho. And Joanna
14 Innualuk-Kunnut, who wears assorted hats; she's from
15 the Women's Committee; she's also from QIA and
16 represents -- she's wearing three hats. And another
17 committee member representing the Hamlet of Pond Inlet,
18 Abraham Kublu. I had stated Elijah Panipakoocho is
19 from HTO. And these are the committee members that's
20 here in Pond Inlet.

21 I do want to say that Jerry Natanine from Clyde
22 River is also a member of QIA, and he's in attendance,
23 and we welcome them to the community of Pond Inlet.

24 Thank you, Mr. Chair.

25 THE CHAIR: Thank you. Environment
26 Canada.

1 MR. DAHL: Environment Canada will be
2 represented by Mark Dahl and Anne Wilson.

3 THE CHAIR: Thank you. Fisheries and
4 Oceans.

5 MS. WILLISTON: Good morning, Georgina
6 Williston with Fisheries and Oceans Canada.

7 THE CHAIR: And Natural Resources Canada.

8 MS. CAVALLARO: Good morning, it's Kate
9 Cavallaro with Natural Resources Canada, and I have
10 with me Dr. John Kwong.

11 THE CHAIR: Thank you. Aboriginal Affairs
12 or AANDC.

13 MS. COSTELLO: Good morning, my name is Karen
14 Costello, and I am joined by Murray Ball, he's the
15 Manager of Water Resources, and I'm the Director of
16 Resource Management.

17 THE CHAIR: Thank you. It is also my
18 understanding that representatives to the Government of
19 Nunavut are also present today and, although they have
20 not provided formal written submissions, may be
21 participating by asking questions and being questioned
22 by the people in attendance and ask that they introduce
23 themselves for the record.

24 MS. KIEU: My name is Cindy Kieu. I'm
25 legal counsel for the Government of Nunavut. With me
26 today is the Acting Director of Community Economic

1 Development, Nellie Erkloo, of the Department of
2 Economic Development and Transportation. Also
3 Pauloosie Suvega, our Associate Deputy Minister of
4 ED & T, will be joining us this afternoon.
5 Unfortunately, he couldn't make it on the flight
6 yesterday, but he will be joining us this afternoon.

7 Thank you.

8 THE CHAIR: Thank you. The community
9 representatives from Hall Beach, Arctic Bay, Igloolik,
10 Clyde River. Any Elders or community representatives
11 from Pond Inlet who wish to be identified for the
12 record.

13 I will now proceed with the identification of any
14 motions or any other objections to the application that
15 is before the Board. According to the information I
16 have, there are currently no motions or objections
17 filed in this matter, but please advise me if there are
18 any motions or objections to the application at this
19 point.

20 Seeing none, let us proceed to Item 8 of the
21 agenda, the presentation by the Applicant. The
22 Applicant has 90 minutes for a presentation on the
23 application before the Board, after which time, the
24 Board will entertain questions from the parties and
25 community members in attendance.

26 Before we move on to the Applicant, I was advised

1 that this would be a good time to take a 20-minute
2 break. We'll see you back here in 20 minutes.

3 (ADJOURNMENT)

4 THE CHAIR: Welcome back everyone. To
5 carry on with this hearing, we now have the Applicant
6 to have a 90-minute presentation, and I would ask
7 Teresa to do the oath to the presenters.

8 MS. MEADOWS: Thank you, Mr. Chair. Teresa
9 Meadows, legal counsel for the Nunavut Water Board.

10 I would like all of the witnesses who wish to
11 swear an oath to put their hand on the Bible, please,
12 and if I can get you to state and spell your name for
13 the record, first and last.

14 ERIK MADSEN, OLIVER CURRAN, JAMES MILLARD, Sworn

15 FERNAND BEAULAC, affirmed

16 PRESENTATION BY BAFFINLAND:

17 THE CHAIR: Go ahead.

18 MR. MADSEN: Mr. Chairman, I realize the
19 time -- it's Erik Madsen with Baffinland -- it's about
20 10 to 11. I know you talked about having a lunch break
21 from 12 to 1. Our presentation will be longer than an
22 hour-and-a-half, so it will carry us through into
23 lunchtime, so I don't know if you want us to stop right
24 at noon, and we'll carry on after lunch.

25 MS. MEADOWS: Thank you, Mr. Chair. Teresa
26 Meadows, legal counsel for the Nunavut Water Board.

1 Yes, Mr. Madsen, if you can break right around
2 noon, and then we'll continue, or break where you think
3 is an appropriate time right around that time, and we
4 can continue this afternoon with your presentation.

5 Thank you.

6 MR. MADSEN: All right, thank you.

7 Good morning, Mr. Chairman, Board Members, Board
8 Staff, the NIRB Staff, representatives from the
9 Qikiqtani Nunavut Association, representatives from all
10 agencies, and also community members from other North
11 Baffin communities, Elders and residents of Pond Inlet,
12 and Mr. Mayor.

13 My name is Erik Madsen, I am the Vice President of
14 Sustainable Development with Baffinland. Our team is
15 very pleased to be here today at these final Water
16 Board hearings for the Nunavut Impact Review Board's
17 approved Mary River Project. We look forward to
18 providing you with our presentation, listening and
19 addressing questions that may come up from other
20 parties or public presentations.

21 I would like to thank the Nunavut Water Board and
22 the Board Staff for organizing this final hearing for
23 Baffinland's Type "A" water licence application. It
24 has been a pleasure working with your team this far.

25 The presentation will summarize the work that has
26 been included with the water licence application, which

1 was submitted with the final environmental impact
2 statement back on February 2012. With the extensive
3 information requests from agencies, the technical
4 review and comments from agencies in June, the
5 technical meetings held in October and January, as well
6 as the final intervenor comments in March, Baffinland
7 and agencies, we are all in a very good position to
8 work together in various key aspects that will be
9 touched on during these hearings.

10 Our presentation will address the following: The
11 list of issues identified by the Nunavut Water Board in
12 the pre-hearing decision on January 25th, 2013. We
13 will give a brief overview of the Mary River Project,
14 and as you noted, Mr. Chairman, hopefully by now
15 everybody involved has a very good idea of what this
16 project is all about. We will briefly discuss the
17 early revenue project that was announced in January of
18 this year. We will discuss the Type "B" Water Licences
19 that were Items Number 2 and 3 on the pre-hearing
20 conference decision. We will outline the scope of the
21 Type "A" water licence application, and then we'll
22 provide an overview of the concerns identified by the
23 Qikiqtani Inuit Association and agencies' final
24 submissions.

25 Mr. Chairman, I have already identified members of
26 our team, but I also would like to introduce a few key

1 members that I didn't introduce earlier, and they are
2 Joe Tigullaraq, Qav Issugangituq, and Joe Krimmerdjuar.
3 They are our Baffinland liaison officers, and Joe is
4 our senior Northern Affairs manager. They play a vital
5 role in ensuring that communities have a source to go
6 and ask questions about the project and as well as to
7 be kept updated all the time as to what Baffinland is
8 doing.

9 I would like to move on to the list of issues
10 identified at the pre-hearing decision. It is
11 important to note that at the pre-hearing conference,
12 the parties in attendance confirmed that none of the
13 unresolved or outstanding issues are of the type that
14 would prevent the Board from proceeding with the
15 hearing. The Board provided a list of issues to be
16 addressed by the intervening parties in their final
17 submissions of March 22nd.

18 This slide shows a list on page 16 of the
19 pre-hearing decision that you, Mr. Chairman, already
20 identified earlier this morning, so I will not run
21 through them all again, but the list is in our
22 presentations on this slide as well as the next slide
23 that touched base on the various areas that required
24 decisions on and for parties and agencies to reference
25 at these hearings.

26 In addition to the list of issues, there were five

1 follow-up items as listed on this slide. In February
2 and early March, Baffinland provided written responses
3 to the Board on these items, and they were on water use
4 and compensation; monitoring, management plans, and
5 measures; waste management; closure and reclamation;
6 and security bonding.

7 I would like to now provide a brief overview of
8 the general project. The Mary River Project is
9 situated on North Baffin island, approximately 1,000
10 kilometres north of Iqaluit, 160 kilometres southwest
11 of Pond Inlet, and the proposed Steensby Port is
12 located approximately 300 kilometres east of Igloolik.

13 Extreme cold for much of the year is a reality
14 that has been considered and designed for in the
15 Type "A" water licence application . Additionally, we
16 have extensive experience in working in this climate.
17 We are proud of our track record so far at Mary River.
18 Baffinland has been working there since 2004, and we
19 operate in a manner that respects all regulations and
20 expectations of a safe and sustainable operation. We
21 have built a culture of excellence and continual
22 improvement, and this forms a very strong base for our
23 future operations.

24 Baffinland has worked closely with local
25 communities over the past number of years and employs
26 people from the North Baffin communities. We look

1 forward to an even closer, mutually beneficial
2 relationship as the project is developed and operated
3 in accordance with the project certificate and the
4 Type "A" water licence.

5 This slide shows the water management areas for
6 Baffin Island and the Melville Peninsula. The two
7 major management areas in which the project will
8 operate are Area 48 for the Milne Inlet and Tote Road
9 and mine site, and then the Area 21, which is the one
10 on the bottom here for the railway and the Steensby
11 Port location.

12 As you identified, Mr. Chairman, the Mary River
13 Project will produce high-quality iron ore for world
14 markets. The project components are the mine site
15 itself, an open pit, and preparation of mined ore for
16 transport. We wish to emphasize again, that due to the
17 high-grade iron ore, there will be no processing
18 required, and there will be no tailings produced from
19 this operation. This is a significant environmental
20 benefit for the project from a water use and discharge
21 perspective. The transportation components, including
22 a railway, a port site that can support year-round
23 shipping, as well as the use of a Tote Road and
24 seasonal material sea lists for Milne Inlet.

25 As a whole, the project may appear to be
26 unprecedented, but all of the individual elements of

1 the project have been built and operated in similar
2 environments. There are numerous examples to learn
3 from both across Canada's north and internationally,
4 and this project has incorporated extensive
5 site-specific knowledge and built on engineering
6 knowledge already tried and proven for other projects
7 in the north. The study and analysis that we have done
8 and our commitment to continue to advance our knowledge
9 positions us to face the challenges associated with
10 design and operation and aspects related to water use
11 and discharge.

12 This slide outlines the remainder of the aspects
13 of the project, which are the Steensby Port, which will
14 accommodate vessels capable of year-round shipping.
15 The Milne Inlet Port will be developed and mostly used
16 during construction and for transportation of oversized
17 equipment, and the existing Tote Road will be upgraded
18 to handle this larger equipment.

19 This slide outlines the relevant terms and
20 conditions of the Nunavut Impact Review Board's project
21 certificate. Aboriginal Affairs and Northern
22 Development and the Department of Fisheries and Oceans
23 provided a list of project certificates, terms, and
24 conditions that they felt were relevant to the water
25 licence, and they are listed on this slide. At the
26 same time, Baffinland also reviewed the list of project

1 certificate terms and conditions that were relevant to
2 the Type "A" water licence, and we have identified
3 those conditions on this slide.

4 In the next slide, I would like to very briefly
5 touch base on an update to the early revenue phase. As
6 most are aware, in early January 2013, Baffinland made
7 the announcement that it was moving the Mary River
8 Project into a phased approach, that although we had
9 recently received a project certificate on
10 December 28th, 2012, for the railway project and
11 shipping out of Steensby Port, Baffinland will now
12 pursue a trucking option. This would involve utilizing
13 the Tote Road and shipping 3.5 million tonnes of ore
14 annually during the summer months only from the Milne
15 Inlet Port.

16 Baffinland will be submitting a detailed addendum
17 document to the final environmental impact statement at
18 the end of June of this year. This will initiate the
19 process review for this early revenue phase. The
20 Nunavut Impact Review Board will then set the process
21 for the review of this new submission and should, if
22 any amendments be required to the Type "A" water
23 licence, these would be applied for in due course.

24 In summary, Baffinland recognizes and
25 acknowledges, as was identified by you, Mr. Chairman,
26 earlier today, that this Type "A" water licence hearing

1 has nothing to do with the early revenue phase project.

2 I would like to now discuss the status of our
3 existing Type "B" water licences and the recent
4 Type "B" licence application. Baffinland would like to
5 remind the Water Board and all parties that we do have
6 an existing Type "B" water licence. This licence
7 allows us to undertake activities that are identified
8 on this slide, and this licence expires on April 5th,
9 2014. It is Baffinland's intention to maintain this
10 licence in the future for ongoing exploration
11 activities and will take the necessary steps to apply
12 for this new Type "B" licence greater than six months
13 prior to the expiry date.

14 As noted in the previous slide, it is Baffinland's
15 intention to retain the existing Type "B" licence. One
16 of the issues identified from the technical meetings
17 was to identify activities that would remain under the
18 existing Type "B" water licence and which activities
19 would be moved over to the Type "A" licence. This
20 information was provided to all parties and the Board
21 on October 31st, 2012. There was also a request to
22 outline what amount of security would remain with the
23 Type "A" licence and what would be transferred into the
24 Type "A" licence.

25 Later in this presentation, the breakdown of
26 securities will be outlined, but as a result of the

1 updated closure cost estimate, Baffinland will be
2 requesting that the amount of security in the existing
3 Type "A/B" licence be reduced to \$1.25 million.

4 The next few slides I will discuss the recent
5 Type "B" water licence application. On March 12th,
6 2013, after consultation and recommendation by the
7 Nunavut Water Board Staff, Baffinland submitted a new
8 Type "B" application that would allow various
9 earthworks related to the approved project to commence
10 during this transition time until a Type "A" Licence is
11 issued.

12 The Board sent this new application out for review
13 and comments were due on April 15th, but at the request
14 of the Qikiqtani Inuit Association, an extension was
15 provided until April 19th. Baffinland has received the
16 comments from the Qikiqtani Inuit Association and
17 Aboriginal Affairs and will be providing a written
18 response to the Nunavut Water Board in the next couple
19 days on this Type "B" application. Once the Type "A"
20 Licence is issued, all activities related to this new
21 Type "B" would then roll into the Type "A".

22 The primary activities related to this new
23 Type "B" Licence applied are primarily for the
24 construction of a new lined berm to house future fuel
25 tanks, the construction of an additional 5 million
26 litre fuel tank within the existing berm at Milne

1 Inlet, the building of camp pads to house future camps,
2 and the building of an additional polishing pond to
3 hold sewage at Milne Inlet. Baffinland wants to note
4 that the majority of these activities have already been
5 undertaken previously under the existing Type "B"
6 Licence.

7 In the future, Baffinland will need winter roads
8 associated with the project to access the railway
9 camps. Type "B" water licence applications will be
10 applied for well in advance of these activities for any
11 winter roads being constructed.

12 I would now like to provide an update on the water
13 compensation agreement. Baffinland and the Qikiqtani
14 Inuit Association are currently negotiating an
15 operational lease, and this will also include
16 provisions for water compensation. Baffinland and the
17 Qikiqtani Inuit Association have recently exchanged
18 various drafts of water compensation agreements.

19 Progress has been made, and discussions continue while
20 these hearings are on between both parties. Baffinland
21 and the Qikiqtani Inuit Association are well aware that
22 water compensation must be agreed upon between the
23 Inuit landowner and the Proponent before the Minister
24 issues a water licence, but we wish to emphasize this
25 should not hold up this hearing. Both the Qikiqtani
26 Inuit Association and Baffinland will keep the Board

1 updated on discussions, and both parties will notify
2 the Board in writing when an agreement has been
3 reached. If an agreement is not reached by the end of
4 this hearing, in the next few days, then Baffinland and
5 the Qikiqtani Inuit Association may wish to jointly
6 address some procedural issues. Baffinland will update
7 the Board on the status of the water compensation in
8 its closing remarks.

9 I would like to now turn the presentation over to
10 Oliver Curran, who will outline the Type "A" water
11 licence application.

12 MR. CURRAN: Thanks, Erik. Thank you,
13 Mr. Chair, and good morning all.

14 I would like to now provide an overview of the
15 Type "A" water licence application . I will start with
16 a brief overview of the process, the scope of the
17 Type "A" application, followed by an overview of some
18 potential terms and conditions that could be considered
19 by the Nunavut Water Board in the Type "A" water
20 licence. Finally, in this section of the presentation,
21 I would like to revisit the topic of flexibility
22 previously discussed at the technical meetings in
23 January as an important and necessary requirement in
24 the Type "A" water licence.

25 This slide provides some key points related to the
26 licencing process to date. In February of 2012, the

1 Type "A" water licence application was filed with the
2 Nunavut Water Board as a stand-alone document, Appendix
3 3-B of the final environmental impact statement. A
4 technical meeting was held in January on the
5 application, and the Nunavut Water Board captured the
6 scope on pages 3 to 5 of the application in their
7 pre-hearing conference decision. Finally, it is
8 important to point out that the activities described in
9 the 2013 work plan will be the start of construction
10 for the approved project.

11 As indicated on this slide, the scope of the water
12 licence application has not changed. Design criteria
13 and technical specifications for the facilities are in
14 the application and will not change. However, as
15 detailed design progresses and the site design is
16 optimized, changes may be introduced to configuration
17 of facilities and their location. This is typical in
18 project developments, and it is important to note that
19 all changes will be confined to the potential
20 development areas identified in the final environmental
21 impact statement.

22 As discussed in previous meetings, Baffinland will
23 submit drawings issued for construction to the Nunavut
24 Water Board prior to commencement of construction
25 activities. Additional changes that occur during
26 construction due to site-specific conditions

1 encountered during physical investigations and
2 groundwork activities will be addressed by Baffinland
3 informing the inspector of Aboriginal Affairs and
4 Northern Development Canada of such changes and will
5 explain why the changes are necessary. As-built
6 drawings would then be submitted to the Nunavut Water
7 Board.

8 Baffinland is appreciative of meetings organized
9 by the Nunavut Water Board in Edmonton and Yellowknife.
10 At these meetings, the need for flexibility for the
11 Type "A" Water Licences for all proponents were
12 discussed in light of the fact that design optimization
13 and site-specific changes need to be considered for
14 projects. It was recognized by all proponents and the
15 Staff of the Water Board that such flexibility is
16 required for any large project. I will summarize
17 detailed design a bit later in this section of the
18 presentation.

19 I would also like to note as well that the Nunavut
20 Impact Review Board recognized the need for flexibility
21 in the commentary to Project Certificate Condition
22 Number 16, which recognizes the need to not limit the
23 ability of the proponent to refine and optimize the
24 design, placement, and construction as it may become
25 necessary to reflect site-specific conditions
26 encountered during construction.

1 This slide summarizes how the information in a
2 Type "A" application is organized. Two attachments to
3 highlight, our project-wide documents that contain
4 design criteria and technical specifications for
5 facilities that are common to many areas of the project
6 such as sewage effluent treatment plants.
7 Site-specific documents on the other hand are related
8 to one aspect of the project. An example of this would
9 be the waste rock pile.

10 On March 7th, Baffinland responded to a list of
11 items outlined in the pre-hearing conference decision.
12 This included updated financial statements, closure
13 cost summary for the 2013 work plan, notes on a meeting
14 with Natural Resources Canada and other agencies on
15 geochemistry and water quality modelling, the aquatic
16 effects monitoring program framework, and proposed
17 terms and conditions for the Type "A" water licence.

18 This slide pertains to the term of the Type "A"
19 water licence that Baffinland has numbered as Number 4
20 of the Nunavut Water Board's pre-hearing conference
21 decision. Baffinland is requesting a term of 25 years,
22 while the QIA is asking for a 5-year term, and other
23 agencies are requesting a 10- to 12-year term.

24 Baffinland is asking for a longer term for the
25 following reasons: Number 1, although the scale of the
26 development is large, the complexity is low. From a

1 water use and discharge perspective, there is nothing
2 new with the proposed activities that haven't been
3 experienced elsewhere. Secondly, Baffinland has
4 applied for a 25-year licence to coincide with the
5 expected life of the mine and as a basis of the
6 significant capital investment. A longer term licence
7 provides certainty for the large investment. And
8 lastly, the project has incorporated an adaptive
9 management approach to deal with unforeseen events.

10 In the Nunavut Water Board's pre-hearing
11 conference decision, the Board acknowledged that the
12 drafting of key licencing terms and conditions with the
13 Qikiqtani Inuit Association in advance of the final
14 hearings would be useful. As such, Baffinland
15 submitted a working draft of proposed terms and
16 conditions, and it was circulated to parties on
17 March 7th. It is important to note that the structure
18 of this document follows the format of licences granted
19 for mining operations in Nunavut, that agencies have
20 provided comments on these proposed terms and
21 conditions in their final submissions, and we will
22 refer to these proposed terms and conditions throughout
23 the presentation.

24 Since submitting the proposed terms and conditions
25 working document on February 26th, Baffinland has
26 identified some errors that we would like corrected,

1 and we can provide edits prior to the end of these
2 hearings. Firstly, on page 3, Part A, Baffinland
3 suggests that scope for Milne Port be consistent with
4 the pre-hearing conference decision and remove
5 reference to the number of beds at the camp. Secondly,
6 on page 19, Part F, Table F-4, Baffinland acknowledges
7 that the units are not consistent and should read as
8 milligrams per litre. These are two examples, and
9 Baffinland can provide revisions for identified errors
10 prior to the completion of this hearing.

11 This slide provides an overview of how the
12 proposed terms and conditions are structured in the
13 document. I will point out that the aquatic effects
14 monitoring program framework is contained in Schedule
15 J-1.

16 In the next two slides, I will come back to the
17 requirement of flexibility in the water licence to
18 accommodate for detailed design considerations. This
19 important point was raised by Baffinland during
20 technical meetings. The main point here is that during
21 the detailed design phase of the project,
22 infrastructure will move within the potential
23 development area as a result of optimization and
24 continued evaluation of conditions in the field. Since
25 the submission of the application more than a year ago,
26 the Type "A" water licence will need to accommodate the

1 realities of project design common to all projects.

2 I will summarize some actual examples by project
3 location. For the occupancy at Milne Port, due to the
4 compressed construction schedule in 2013, our manpower
5 requirements will be higher than expected, in the range
6 of 150 to 225 people during an approximately 14-week
7 period during and post sea lift. While this would mean
8 a temporary increase in our camp capacity, we would
9 still remain within our estimated annual total water
10 use and discharge criteria. We are requesting that
11 this temporary increase in the work force be recognized
12 in the Type "A" water licence.

13 There may also be a requirement for a temporary
14 camp along the Tote Road. This camp will not have
15 local uptake or discharge. Water used and sewage
16 effluent produced will be transported to and from
17 either Milne Port or the mine site.

18 At the mine site, ongoing material handling has a
19 profound effect on operating costs over the life of the
20 mine; therefore, considerable effort has focussed on
21 material movement optimization for the ore crushing,
22 stockpiling, and loading facilities. Similarly, waste
23 rock disposal -- for waste rock disposal, Baffinland
24 will optimize its mining plan in order to minimize
25 hauling distances between the pit and the waste rock
26 stockpile area, which has a large beneficial savings on

1 fuel consumption over the life of the mine.

2 At Steensby Port, optimization of the airstrip
3 location has been considered. With respect to fuel,
4 the final configuration and location of the fuel tank
5 farm and the number of tanks within the tank farm may
6 be optimized when Baffinland proceeds with procurement.
7 The number of tanks and the location of tank farms
8 relative to the freight dock has to be minimized -- has
9 to minimize the distance for pumping of fuel over long
10 distances. It should be noted that in many cases
11 detailed design considerations have the added benefit
12 on minimizing environmental risks and/or potential
13 impacts.

14 For the railway, the number and specific locations
15 of temporary construction camps may be optimized based
16 on the contractor's construction methodology and
17 schedule. In turn, this will affect the location of
18 temporary storage for construction material. The
19 construction of major bridges will require temporary
20 water use from rivers at bridge construction sites.
21 The Aboriginal Affairs and Northern Development Canada
22 inspector and Fisheries and Oceans will be informed of
23 specifics prior to commencement of construction.

24 Several quarry sites have been identified along
25 the railway corridor, but not all of these quarry sites
26 will be exploited. Quarry material will be screened

1 for geochemical characteristics based on a protocol,
2 and criteria will indicate which quarries are suitable
3 for aggregate. Sites used to dispose of unsuitable
4 material from quarries will be identified along the
5 railway construction corridor. The Aboriginal Affairs
6 and Northern Development Canada inspector will be
7 informed of the location of these sites.

8 In this section of the presentation, I will
9 provide an overview of final submissions received from
10 interested parties. Baffinland is thankful for the
11 active participation and contributions from the
12 interested parties throughout this review process and
13 in the workshops for the development of the aquatic
14 effects monitoring program framework.

15 On March 22nd, 2013, written submissions were
16 filed with the Nunavut Water Board by all parties. In
17 their final submission to the Nunavut Water Board,
18 agencies commented on material received by the Nunavut
19 Water Board since the pre-hearing conference decision,
20 including the proposed terms and conditions for the
21 Type "A" water licence. Baffinland then provided a
22 written response to the written submissions on
23 April 5th, 2013.

24 The intent of the next five slides is to summarize
25 an overview of these submissions. Starting with the
26 Qikiqtani Inuit Association submission, there were

1 three items related to scope of the licence, including
2 sewage treatment, fuel storage, and winter roads. Two
3 items related to water quality, one of which is related
4 to blasting activities and the other related to water
5 quality guidelines for discharges from landfarm
6 operations. There was one item on closure.

7 The Qikiqtani Inuit Association also submitted
8 comments on the proposed terms and conditions of the
9 Type "A" water licence. Baffinland has responded to
10 all of Qikiqtani Inuit Association's comments in its
11 April 5th submission to the Nunavut Water Board. We
12 will address the Qikiqtani Inuit Association's comments
13 later in this presentation as they pertain to the
14 discussion for the specific issues identified by the
15 Nunavut Water Board.

16 Listed on this slide are the major themes for
17 comments submitted by Aboriginal Affairs and Northern
18 Development Canada. Most of the discussion was on
19 closure, security bonding, and legacy concerns with the
20 mine pit. Aboriginal Affairs also had questions on the
21 requirement of future Type "B" licences and the scope
22 of these licences. Aboriginal Affairs also submitted
23 comments on the proposed terms and conditions of the
24 Type "A" water licence under the heading of "Other
25 Issues".

26 Baffinland has responded to all of Aboriginal

1 Affairs' comments in its April 5th submission, and we
2 will address Aboriginal Affairs' comments later on in
3 this presentation under the discussion for specific
4 issues identified by the Nunavut Water Board in their
5 pre-hearing conference decision.

6 The theme of Fisheries and Oceans' comments related
7 to water quality with respect to construction and post
8 construction monitoring for water crossings. Most
9 items raised by Fisheries and Oceans have been
10 discussed during previous aquatic effects monitoring
11 program workshops, and there are no contentious issues
12 to be resolved with Fisheries and Oceans. Baffinland
13 acknowledges Fisheries and Oceans' concerns and will
14 adhere to commitments already made throughout the
15 review process; that is, to continue proactive
16 consultation and discussion with Fisheries and Oceans
17 during the implementation phase of the project and the
18 development of quantification of hazardous alteration,
19 disruption, or destruction of fish habitat and
20 no-net-loss discussions.

21 As the Board may have noticed from Environment
22 Canada's final submission, Baffinland has had very
23 constructive dialogue and discussions with Environment
24 Canada throughout the review process. The development
25 of the aquatic effects monitoring program framework has
26 enabled the company to reach consensus with interested

1 parties on many important aspects. We have two
2 remaining items of a divergence with Environment
3 Canada. Firstly, the applicability of the waste water
4 system effluent regulation discharge criteria for the
5 project, and secondly, the metal mining effluent
6 regulation discharge limits to be used for mine contact
7 water.

8 It is Baffinland's opinion that the nature of this
9 divergence of opinion is based on principles rather
10 than ensuring protection of the environment. Two facts
11 are of particular interest to the current water licence
12 discussions. For the waste water system effluent
13 regulation, this is not applicable north of the 60th
14 parallel. The Federal Government has set a five-year
15 window to derive discharge criteria applicable for land
16 north of the 60th parallel. Secondly, consultation on
17 potential revisions to the metal mining effluent
18 regulation discharge criteria have recently commenced
19 and are expected to take upwards of 2 years. In the
20 meantime, the current metal mining effluent regulation
21 criteria remain applicable. We recognize and accept
22 that if the metal mining effluent criteria change, they
23 would be applicable to our operations. This is
24 provided for in Section 75 of the Nunavut Waters Act.
25 These two divergences will be discussed in more detail
26 during the discussion on water quality later in the

1 presentation.

2 Natural Resources Canada made three
3 recommendations in their final submission. Baffinland
4 agrees with Natural Resources Canada and simply wishes
5 to point out that the establishment of a test pile at
6 site is subject to the Board's approval.

7 For the remaining portion of this presentation
8 that I will speak to we will address each of the issues
9 by item number identified by the Board in the
10 pre-hearing conference decision on page 16 and will
11 incorporate in these discussions our responses to the
12 various agencies' final submission.

13 This slide outlines the three outstanding items
14 for the agencies related to construction of facilities
15 and infrastructure. The first is land disposal of
16 dredged material from Steensby Inlet. Secondly, this
17 one relates to airstrips along the railway corridor
18 service road, and lastly, construction of emergency
19 storage ponds for railway camp sewage treatment
20 effluent.

21 Baffinland's preferred option is for deposition of
22 material at sea, and we recognize that if this option
23 is pursued that a disposal-at-sea permit is required
24 from Environment Canada. Baffinland has already been
25 in discussions with Environment Canada on the
26 requirements since the middle of 2012. For the purpose

1 of the environmental impact statement, a land disposal
2 option was presented and reviewed as part of the
3 Nunavut Impact Review Board process. The location and
4 conceptual drawings for the disposal on land of dredged
5 sediments from Steensby Inlet were presented in the
6 final environmental impact statement, Appendix 3-A, and
7 the specific references are on the slide here. No
8 questions have been raised related to land disposal of
9 the dredged material throughout the Nunavut Impact
10 Review Board review. If Baffinland decides to proceed
11 with a land disposal option, an application for a
12 modification to the Type "A" licence will be required.

13 For the construction of the railway, Baffinland
14 proposes to use temporary airstrips located along the
15 railway service road. Temporary airstrips along the
16 railway service road have no water requirements, nor do
17 they generate waste. A section of the service road is
18 likely to serve as the airstrip. The airstrip will be
19 temporary in nature and will be located either on the
20 footprint of the service road or within the service
21 road corridor. Reference to this can be found in the
22 final environmental impact statement, Volume 3, Section
23 2.5.8. Baffinland, therefore, considers that these
24 temporary airstrips are not relevant to the water
25 licence.

26 Sewage generated at railway camps will be treated,

1 and the treated effluent will be transported to the
2 mine site and Steensby Port for final disposal. At the
3 pre-technical meeting of October 2012, the Qikiqtani
4 Inuit Association requested that the storage ponds at
5 each campsite be sufficiently large to cope with
6 potential interruptions of road transport. The size of
7 the ponds was thus increased to hold at least one year
8 of production of treated sewage effluent. The
9 resulting ponds would remain within the development
10 areas identified for the location of the camps. The
11 design does not include local discharge of effluent;
12 therefore, there are no additional environmental
13 effects.

14 This slide shows what the sizing of the rail camp
15 ponds would be if they were to contain 12 months of
16 treated sewage effluent. Baffinland recognizes that it
17 would be preferable and more economical to have local
18 discharges for the rail camps. This cannot be done
19 until the exact locations of the camps are finalized.
20 Once the exact location of the railway camps are
21 finalized, Baffinland will investigate the possibility
22 of a local discharge for each railway camp. The local
23 discharge of treated effluent at these sites would be
24 the subject of an amendment to the Type "A" water
25 licence. Baffinland requests that terms and conditions
26 of the Type "A" licence facilitate this approach by

1 including Articles 14 and 15 of Part F of the proposed
2 terms and conditions of the water licence shown on the
3 next slide.

4 This slide provides the proposed wording for
5 Article 14 and 15 that could be used in a Type "A"
6 water licence. The differences between Article 14 and
7 15, the main differences here is that for the Ravn
8 River and Mid-Rail construction camps, the sewage would
9 be transported to Mary River, and Article 15 speaks to
10 South Cockburn and North Cockburn construction camps
11 where that sewage would be transported to Steensby
12 Port.

13 Up to now, I have spoken about proposed terms and
14 conditions as they supply to some of the slide content.
15 In summary, Part D of the working document covers
16 construction drawings and as-built drawings, changes in
17 construction plans, borrow pits and quarry development,
18 surface water management, stream and river crossings,
19 site drainage, bulk fuel tank farms and temporary fuel
20 storage, and finally, outdoor hazardous and
21 nonhazardous waste transfer site and temporary storage
22 of waste.

23 Baffinland also notes that both the Qikiqtani
24 Inuit Association and Aboriginal Affairs have commented
25 on the proposed terms and conditions for the water
26 licence. The Qikiqtani Inuit Association commented in

1 Appendix A of their submission, and Aboriginal Affairs
2 commented in Section 12.2 of their submission, and as
3 noted before, Baffinland has provided responses for
4 each of the comments.

5 Environment Canada did not request a response on
6 any of the terms and conditions in particular but do
7 make reference to discharge criteria in the terms and
8 conditions document. We believe that the concerns of
9 Fisheries and Oceans related to water crossings were
10 also adequately addressed in the proposed terms and
11 conditions in Part D.

12 So maybe now, I will pass it on to Jim to speak on
13 the topic of geotechnical aspects and permafrost, or we
14 may want to break now and resume back at 1:00. Jim's
15 section of the presentation is about 45 minutes, so ...

16 THE CHAIR: Break for lunch. Be back
17 at 1.

18 (LUNCHEON ADJOURNMENT AT 11:48 AM)

19 (PROCEEDINGS RECOMMENCED AT 1:05 PM)

20 THE CHAIR: Welcome back everyone. We
21 have a lot of material to cover, so let's get back to
22 our chairs and tables, and before we get onto the next
23 round of the presentation, I understand we have a
24 procedural matter that needs to be addressed by legal
25 counsel.

26 MS. MEADOWS: Thank you, Mr. Chair. Teresa

1 Meadows, legal counsel for the Nunavut Water Board.

2 There are just a couple of quick procedural
3 matters that we have to attend to before the
4 presentation continues from Baffinland Iron Mines
5 Corporation.

6 The first matter that I would like to clarify is
7 just that in Baffinland's presentation, they provided
8 an indication that they have filed with the Board a
9 draft of a water licence that they had prepared, and
10 they indicated that we had referenced doing that in the
11 pre-hearing conference decision, and I just want to
12 make it clear for everyone who is here that the draft
13 was prepared by Baffinland for discussion purposes
14 only. It's not an indication or a prejudgment in terms
15 of how the Board will or won't deal with particular
16 issues, and I would just like to read for the record
17 exactly what the Water Board said in the decision.

18 Under Item H on page 18 of the pre-hearing
19 conference decision that was issued January 25th, the
20 Water Board said: (as read)

21 At the pre-hearing conference, Baffinland
22 Iron Mines Corporation and the Qikiqtani
23 Inuit Association discussed providing, in
24 advance of the hearing and for the review of
25 all participants, a draft of key licencing
26 terms and conditions. The Board acknowledges

1 that such documentation may be useful to
2 focus the discussion of various items at the
3 public hearing and to establish the
4 respective perspectives of Baffinland Iron
5 Mines Corporation and the Qikiqtani Inuit
6 Association with respect to particular
7 aspects of a potential licence. However, the
8 Board does note that the NWB's discretion
9 associated with preparing the actual terms
10 and conditions of any future licence which
11 may be issued after the hearing would not be
12 fettered by the Board's receipt of this
13 submission or submissions in response to it
14 as part of the public hearing documentation.

15 And so essentially what that means is that the Water
16 Board may consider the draft terms and conditions but
17 are not bound to follow any of those draft terms or
18 conditions and maintains the discretion to determine
19 whether and if a water licence is issued in this
20 particular case.

21 The second procedural matter, Mr. Chair, is just
22 that it is our understanding that the presentation
23 materials that are being provided and presented by
24 Baffinland today are located on the back table for
25 people who are interested in getting a copy in English
26 or Inuktitut, and as well, that it is my understanding

1 that Baffinland intends to file those, as they're
2 presented in oral form, as an exhibit to this hearing.
3 So I'd like to turn it over to Baffinland's legal
4 counsel, Mr. Brad Armstrong, with respect to that.

5 MR. MADSEN: It's Erik Madsen with
6 Baffinland. I'll say a few things, and then I'll pass
7 it over to Brad Armstrong.

8 I want to, first of all, apologize that this
9 morning in this slide pack that we have here, Slides
10 15, 16, and 17, where they are located in the slide
11 pack are not where they were in the presentation. They
12 were moved further ahead, so Oliver covered those same
13 slides, but they weren't in the spot located.

14 Where we are now, Slide 51, geochemistry and
15 permafrost, if you look at that, that is exactly where
16 you are on your packet now, so Slide 51 is exactly
17 what's on there. So moving forward, it will all match,
18 and we apologize for those three slides being moved in
19 the presentation.

20 MR. ARMSTRONG: Thanks, Brad Armstrong, legal
21 counsel for Baffinland.

22 So we would propose to have our slide presentation
23 marked as the, I think, first exhibit in the
24 proceedings, if we could.

25 MS. MEADOWS: Thank you, Mr. Armstrong.

26 Teresa Meadows, legal counsel for the Nunavut Water

1 Board. Yes, we'll mark that, the English presentation,
2 as Exhibit 1 and the Inuktitut presentation as
3 Exhibit 2 to the hearing. Thank you.

4 I have nothing further, Mr. Chair.

5 EXHIBIT 1 - Mary River Project Nunavut Water Board
6 Public Hearing PowerPoint Presentation of
7 Baffinland Iron Mines Corporation [English].

8 EXHIBIT 2 - Mary River Project Nunavut Water Board
9 Public Hearing PowerPoint Presentation of
10 Baffinland Iron Mines Corporation [Inuktitut].

11 THE CHAIR: Thank you. Moving on to the
12 next round of -- through our presentation. Please, go
13 ahead.

14 MR. MILLARD: Yeah, my name is James
15 Millard. Thank you, Mr. Chairman and Board Members.

16 I'm going to be following through with the next
17 segment of my presentation. Now, throughout my
18 presentation, I'm going to make reference to Slides 70,
19 72, and 74, and those are simply the site layouts
20 for -- Slides 70 is a site layout for Milne Port, Slide
21 72 is a site layout for Steensby, Steensby Port, and
22 Slide 74 is the layout for the mine site. So I just
23 thought I would mention that in advance. You can kind
24 of move ahead in your presentation, and I believe the
25 Board Members have blowups of those particular maps,
26 and they are in your hands right now.

1 So moving forward here, geotechnical and
2 permafrost are under Item 8 of the identified list of
3 potential concerns, and this, of course, relates to the
4 construction of facilities and infrastructure.

5 At Mary River, when designing facilities, we take
6 into consideration geotechnical and permafrost
7 conditions. Since 2008, we've advanced approximately
8 1,100 geotechnical drillholes through surface soils
9 and, in many cases, into bedrock to assess geotechnical
10 and permafrost conditions.

11 The drilling has focussed on the footprints of
12 potential infrastructure for the project. Based on an
13 assessment of the drill data, as well as surface data
14 such as topography, geotechnical characteristics of
15 soils and bedrock, and the permafrost conditions that
16 have been encountered, final decisions are made on
17 locations, designs, and construction methods for
18 project infrastructure. For example, for -- a simple
19 example would be for sites -- site infrastructure
20 locations are chosen to avoid pooling or surface runoff
21 of water.

22 The railway design is a good example of this. The
23 designs are developed and optimized based on experience
24 gained at projects with similarities such as those in
25 Russia, Sweden, or Tibet. By minimizing the
26 disturbance to thaw-sensitive soils and natural

1 drainage, by maximizing the winter construction season
2 for the embankment base for these structures, by
3 limiting grades in tight curves, and by continuous
4 improvement based on the results of regular
5 performance, monitoring, and maintenance during
6 construction and operation.

7 Another example is the ore stockpiles, lay-downs,
8 and camp pads that we're going to be designing and
9 constructing. Soils with ice lenses are avoided, and
10 up to 1.5 metres thick granular pads are used as
11 insulting layers over ice-rich soils. Also, drainage
12 is managed by means of perimeter ditches and
13 storm-water ponds where they're warranted.

14 To illustrate, fairly quickly, the previous points
15 regarding design considerations, this diagram shows a
16 cross-section of the railway embankment on ice-rich
17 soils with the following features: The native ice-rich
18 soils foundation, which can be typical of the rail
19 alignment at some locations, these ice-rich soils are
20 overlane (sic) by a layer of thaw-stable sand and
21 gravel, which stays frozen year-round. In turn, this
22 layer is overlane by the constructed embankment
23 material with a shallow grade of repose to minimize
24 pressure on the underlying soils, and of course, on
25 top, the track structure consisting of ballasts, ties,
26 and rail.

1 For the waste rock -- for the waste rock pile
2 design, geotechnical and permafrost conditions are
3 taken into consideration by strategically using berms
4 rather than ditches to provide drainage diversions that
5 avoid excavation into ice-rich soils and lenses, by
6 berm construction such that frozen conditions within
7 the core of the berm are maintained to prevent
8 under-mining due to subsurface flows, by managing
9 runoff flows from the waste rock pile by means of
10 adequate dam design, dam safety assessment, and an
11 overall storm water management and drainage design
12 system, and by constructing the waste rock pile in a
13 way that promotes permafrost formation.

14 Water use is under Item 9 of the identified list
15 of potential concerns. During the course of the
16 project, fresh water will be withdrawn from approved
17 freshwater sources as listed in Table E-1 of the next
18 slide. To allow for adequate flexibility during
19 construction period, Baffinland requests that the
20 licence establish an annual limit on water volume.
21 Total annual volumes for the project that are proposed
22 during construction, 580,000 cubic metres, and during
23 operation, 230,000 cubic metres, again per year.

24 The reporting of water withdrawal from water
25 bodies will be provided on a monthly basis in monthly
26 water licence reports provided to the Board and all

1 summarized in annual reports. Baffinland also requests
2 that the licence authorize the company to use recycled
3 water for various uses. In this clause, we've included
4 in our proposed terms and conditions Part E, Article 8.
5 For example, the use of captured site water for dust
6 suppression can be a very good way to conserve water
7 and with -- causing no environmental consequences.

8 I'd just like to point out that there are no other
9 industrial users of water on Inuit-owned land or
10 Crown-land associated with the project, although, of
11 course, small quantities of fresh water are used by
12 Inuit land users from time to time within the project
13 area to support hunting- and fishing-based activities.

14 So this is Table E-1 taken from our draft water
15 licence terms and conditions. This table lists water
16 intake locations for various camps and the requested
17 annual permit limits in cubic metres. I'd just like to
18 point out that, during construction, there will be an
19 occasional need to draw from sources other than draw
20 points listed in Table E-1. This is addressed with a
21 proposed term and condition, Part E, Article 10 of the
22 draft licence that we submitted for consideration. .

23 Moving on to water management issues, which
24 include in this case the wide range of measures and
25 controls, and these are under -- for managing surface
26 water, and these are under Item 11 of the identified

1 list of potential concerns.

2 The next few slides will present the key water and
3 effluent management features for the project. A
4 fundamental advantage of this project is that there is
5 no processing plant or mill that adds chemical
6 reagents; hence, there is no process water or mine
7 tailings discharged to containment areas or to tailings
8 ponds. This is a unique -- this is unique for a mining
9 operation and makes the project very similar to a large
10 quarry operation in many respects.

11 With regard to the waste rock and ore stockpiles,
12 runoff will be directed to sedimentation ponds and
13 monitored for quality prior to discharge to the
14 receiving environment. Discharges from ore stockpiles
15 and the waste rock stockpile will meet established
16 effluent criteria under the metal mining effluent
17 regulations and the water licence.

18 The work completed to date on mine contact water
19 quality indicates water treatment is a very unlikely
20 scenario for waste rock, stockpile runoff, and mine pit
21 water. This is based on ongoing geological and
22 geochemical waste rock characterization and monitoring
23 program that has been conducted to validate these
24 predictions. However, please note that, as a
25 contingency, in the highly unlikely scenario that
26 treatment -- that water treatment would be required for

1 waste rock or mine pit water, Baffinland does commit to
2 design, mobilize, and commission a treatment plant for
3 that purpose.

4 Before discussion of the outstanding issues, we
5 want to give a brief overview of the key water
6 management features incorporated in our project design.
7 Although treatment plants are unlikely for waste rock
8 and mine pit runoff, treatment plants will be utilized
9 for sewage and oily water.

10 There are two principal water management features
11 that are designed into the operation: Waste water
12 treatment plants and surface water management controls
13 and features. Waste water treatment plants
14 incorporated into the project design include sewage
15 treatment plants with storage ponds, oily water
16 treatment plants located at maintenance shops to treat
17 truck shop wash water, and mobile oily water treatment
18 units to treat contaminated water in fuel and landfarm
19 berms.

20 Surface runoff water quality and quantity can be
21 of concern during the construction and operation phases
22 of the project. The surface water management features
23 and controls incorporated into the project include the
24 following: Secondary containment for bulk fuel storage
25 and fuel transfer dispensing areas; establishment of
26 discharge criteria for fuel berm, landfarm water, and

1 general site runoff; seepage runoff criteria for the
2 nonhazardous landfills and for quarries; construction
3 of diversion structures and sedimentation ponds for
4 runoff from the ore stockpiles; limiting the footprint
5 of the waste rock stockpile; and the incorporation of
6 waste rock stockpile runoff sedimentation ponds, and
7 the control of pit water by means of conveying pit
8 water from established sumps to the waste rock
9 stockpile or sedimentation ponds during the mining
10 operation.

11 The surface water -- we have a management plan
12 called the surface water aquatic ecosystem management
13 plan, which was recently updated in March of this year.
14 This plan addresses site drainage and a range of
15 mitigation measures and monitoring requirements for
16 various earthwork activities and works on water
17 crossings, for example, the Tote Road and quarry access
18 roads.

19 Open-pit mining will generate quantities of ore
20 that will be stored temporarily in ore stockpiles and
21 waste rock that will be stored in dedicated permanent
22 locations. And I draw your attention to Slide Number
23 74, which is a layout of the mine site which shows the
24 waste rock storage pile, as well as the run of mine
25 stockpile, and the crusher stockpiles.

26 Let's focus first on the water management features

1 and potential concerns associated with the ore
2 stockpiles. Ore mined in the pit will be dumped on a
3 small run of mine stockpile located near the primary
4 crusher with the capacity of approximately 400,000
5 tonnes. The ore is crushed and conveyed to the ore
6 storage area. The ore is loaded eventually into
7 railcars. The temporary ore stockpiles for the railway
8 operation have an expected combined capacity in the
9 order of 1.4 million tonnes. Ore will be stored at
10 these locations temporarily, and the drainage during
11 operations is controlled with storm water ponds and
12 perimeter ditches -- perimeter berms and ditches;
13 therefore, there is little concern about long-term
14 potential effects of potentially acid-generating
15 material stored at these locations.

16 Seepage runoff criteria -- continuing on with the
17 controls, surface water controls: The seepage runoff
18 criteria for the nonhazardous landfill and quarries;
19 construction of diversion structures and sedimentation
20 ponds for runoff from the ore stockpiles and limiting
21 the footprint of the waste rock stockpile; the
22 incorporation of waste rock stockpile sedimentation
23 ponds; and the control of mine pit water by means of
24 conveying water.

25 Each ore stockpile will be constructed of a
26 1.5 metre granular thick base with a lime perimeter

1 ditch to direct runoff to a storm water pond. Because
2 of the coarseness of the ore, the amount of runoff
3 expected is minor. Sedimentation capacity will be
4 provided at both stockpiles to reduce suspended solids
5 below the metal mining effluent regulation criteria.
6 The overflow from these ponds are metal mining effluent
7 regulation discharges and will be released to an
8 existing drainage that reports to the Mary River.
9 Because of the rapid turnover of both the ore
10 stockpiles, no oxidation of the ore is likely to take
11 place, and as mentioned, there is little concern about
12 the potential effects of potentially acid-generating
13 materials at those locations.

14 I will now discuss the water management features
15 of the waste rock stockpile again in reference to Slide
16 74, which shows the waste rock stockpile and the
17 associated sedimentation ponds. A waste rock disposal
18 area designed for permanent storage of the waste rock
19 will be located north of the open pit as shown on Slide
20 74. Based on the current mine plan, an estimated 640
21 million tonnes of waste rock will be generated from the
22 mining of Deposit No. 1.

23 A waste rock management plan was submitted in the
24 final environmental impact statement, which addresses
25 the issues of siting, deposition of waste rock,
26 inspection, potential release of contaminants to the

1 receiving environment, geotechnical stability, as well
2 as closure considerations.

3 The storm water management plan, the storm water
4 management system with the associated dam safety
5 assessment and dam design is included in the storm
6 water management and drainage system design, which was
7 an annex to the waste rock management plan submitted as
8 part of the final environmental impact statement.

9 The runoff management system for the waste rock
10 stockpile area will consist of channels formed by berms
11 around the stockpile perimeter and two appropriately
12 sized surface water management ponds. As presented in
13 the permafrost and geotech section of the presentation,
14 berms rather than ditches are used to provide drainage
15 diversions in consideration of the challenges in the
16 Arctic.

17 The waste rock stockpile system is designed to
18 operate as follows, again in reference to Slide 74:
19 Noncontact water will be diverted away from the waste
20 rock stockpile and will be discharged into the
21 respective watersheds. During freshet, runoff will be
22 contained in two sedimentation ponds where suspended
23 solids will settle out. Both ponds are sized to
24 contain the two-year return event for sedimentation
25 purposes. The west pond, shown on the left-hand side
26 of the waste rock pile on Slide 74, will decant water

1 to an existing drainage that leads to a tributary of
2 Camp Lake with final discharge into Camp Lake. The
3 smaller east pond, with 400,000 cubic metres capacity
4 will not be required until later years of the mining
5 operation and will discharge to an existing drainage
6 that reports to the Mary River.

7 Sediment collected in the ponds will vary from
8 year to year. Ponds will be inspected annually after
9 freshet, and any sediment required to be removed will
10 be removed as required. The sediment is predicted to
11 be nontoxic and will be hauled to the waste rock
12 stockpile for disposal. The pond collection system
13 will be monitored for runoff quality and compared with
14 metal mining effluent regulations and water licence
15 criteria.

16 Continuing on with the operation of the waste rock
17 stockpile system. On an annual basis, snow will
18 accumulate in the waste rock stockpile -- on the waste
19 rock stockpile during the winter. During the summer,
20 the melted snow, along with any rainfall, will seep
21 through the active zone, run off the sides of the waste
22 rock stockpile, and drain from the foot of the
23 perimeter of the stockpile. Estimates of waste rock
24 stockpile runoff water quality are presented in Annex 4
25 to the waste rock management plan in a document
26 entitled "Interim Waste Rock Stockpile Seepage Quality

1 Model Report". This modelling shows that following
2 sedimentation, runoff from seepage of water through the
3 waste rock meets metal mining effluent
4 requirements. There are two discharge locations for
5 this runoff: Camp Lake tributary and Mary River.

6 The current waste rock geological and geochemical
7 characterization program will be completed in 2014.
8 This program has been designed in collaboration and
9 with review input from industry and agency experts,
10 including Natural Resources Canada technical staff.
11 The results from this program will improve modelling
12 assumptions for future waste rock and pit water
13 quality. As additional geochemical, geotechnical, and
14 geological data are collected and detailed engineering
15 is completed, the management plan will be further
16 optimized using an approach that protects the
17 environment while operating in a cost-effective manner.

18 So moving on to water quality, which is under Item
19 10 of the identified list of potential concerns. With
20 regard to water quality, the following issues were
21 identified by agencies during previous meetings and in
22 their submissions to the Board. Treated sewage and
23 oily water effluent and their associated discharge
24 limits; mine contact water and the application of metal
25 mining effluent regulations, as well as pit water
26 quality and legacy issues; landfarm and landfill runoff

1 and seepage; water crossings related to construction
2 and decommissioning of crossings and construction/
3 post-construction monitoring; sediment and erosion
4 control during construction and operations.

5 Mine contact water will be presented in detail
6 later in this presentation, as will landfarm and
7 landfill runoff seepage. I will be focussing from this
8 point forward on sewage treatment and oily water
9 treatment.

10 So let's look, first, at sewage and oily water
11 effluent. As Oliver had indicated earlier, for the
12 occupancy at Milne Inlet, due to the compressed
13 construction schedule in 2013, that our manpower
14 requirements will be higher than expected and in the
15 range of 150 to 225 people during an approximate
16 14-week period during and post-sea lift. While this
17 would mean a temporary increase in our camp capacity,
18 we would still remain within our estimated annual total
19 water use and discharge criteria. We are requesting
20 that this temporary increase in the work force be
21 recognized in the Type "A" licence.

22 So with reference to Slide 70, which is up on the
23 screen, there will be two main effluent streams at
24 Milne Port. The first will be treated sewage from a
25 sewage treatment plant and from a sewage holding ponds
26 that will be located in this vicinity here. The second

1 effluent stream will be from oily water treatment
2 plants located at the maintenance shop and also from
3 mobile treatment plants that will be located
4 temporarily to treat the water within the tank farm
5 area and also the landfarm area.

6 MR. ARMSTRONG: Mr. Chair, I just wanted to
7 pause for a second, we -- the site layouts which
8 Mr. Millard is speaking of, we did provide to
9 Ms. Meadows a copy of three site layouts, one from
10 Milne, one for the mine site, and one for Steensby,
11 which may be helpful to reference in hard copy, because
12 these are a little bit hard to see. So we have
13 provided those, and perhaps we could just mark those as
14 Exhibit 3, the three site layouts, and I don't know
15 whether those -- we had marked these to provide to the
16 Board for easy reference. I'm not sure if the Board
17 Members have the slides or not. Thank you.

18 MS. MEADOWS: Thank you, Mr. Chair. Thank
19 you, Mr. Armstrong.

20 Yes, I can confirm that the Panel Members all have
21 a copy of this, and let the record show that we will
22 mark this as Exhibit 3 to the hearing record. Thank
23 you, Mr. Chair.

24 EXHIBIT 3 - Package of three figures: Figure 5:
25 Milne Inlet Surveillance Network Program; Figure 6:
26 Steensby Port Proposed Surveillance Network

1 Program; and Figure 1: Proposed Surveillance
2 Network Program.

3 MR. MILLARD: Discharge of seasonal storm
4 water from fuel berms such as this and landfarm here
5 will be to Milne Inlet at a discharge location
6 approximately located here. However, we also would
7 like the opportunity, as far as the landfarm in
8 particular is concerned, to discharge to the adjacent
9 land surface. Discharge to receiving environment will
10 only occur if effluent meets water licence effluent
11 criteria.

12 So looking at the discharge locations at Steensby
13 Inlet and with reference to the next slide, sewage and
14 oily water discharge is to Steensby Inlet via a marine
15 outfall located approximately here. Runoff from the
16 ore stockpile, ore will be stockpiled on Steensby
17 Island in preparation for shipping. We have storm
18 water -- or a sedimentation pond located and discharge
19 from this pond will be to Steensby Inlet in this
20 location here as represented by the triangle. In the
21 case of the landfarm facility, which is just off your
22 map here, seasonal storm water we would like discharged
23 to the adjacent land surface in this area. Again,
24 discharge to the receiving environment will only occur
25 if effluent meets water licence effluent criteria.

26 Now, looking at discharge locations at the mine

1 site, and again with reference to the next slide, there
2 are two categories of discharge at the mine site:
3 Treated effluent and oily water effluent -- treated
4 sewage effluent and oily water effluent and mine
5 contact water. And again mine contact water will be
6 discussed later in this presentation.

7 For the mine site with regard to treated sewage
8 and oily water effluent from the maintenance shop,
9 discharge will be piped to a holding pond and then
10 discharged to the Mary River at this location during
11 the summer months. During the winter months, the
12 discharge will be held in containment ponds located in
13 this vicinity, and then as soon as the Mary River
14 starts to flow, we will be discharging our effluent
15 during the open-water season from those ponds into the
16 river.

17 Similar to the other sites, we would like the
18 option to discharge seasonal storm water from fuel
19 berms and the landfarm to, which is located here, to
20 the adjacent land surface. From the existing
21 exploration camp, treated sewage would be discharged to
22 existing holding ponds, located approximately here, and
23 then to Sheardown Lake during the summer months, and
24 the outfall would be this orange triangle located
25 there, and that is what we do. Under our existing
26 Type "B" licence, it is current practice. As stated

1 previously discharge criteria to receiving
2 environment -- to the receiving environment will only
3 occur if effluent meets water licence effluent
4 criteria.

5 In our draft proposed terms and conditions for the
6 Type "A" water licence, we have proposed discharge
7 limits for sewage and oily water in Tables F-1, F-2,
8 and F-3 for Milne Port, the mine site, and Steensby
9 Port. Of note is that these discharge limits were
10 discussed during aquatic effects monitoring program
11 workshops with various agencies. There appeared to be
12 substantial agreement between the parties at these
13 meetings based on comments receiving during meetings
14 and based on meeting records which form part of the
15 public record. Proposed discharge limits are
16 protective of the receiving environment. Concerns for
17 nutrient levels are addressed in these limits with
18 lower discharge limits on phosphorus for effluent
19 discharged to Sheardown Lake.

20 This is Table F-1, and it provides proposed limits
21 for treated sewage effluent discharge to fresh water
22 and the marine environment. Note that sewage treatment
23 effluent discharge at Milne Port and Steensby Inlet
24 will be to marine waters. For the railway camps, there
25 will be no local discharges. For discharges to
26 Sheardown Lake from the existing exploration camp, the

1 phosphorus level is lower than for Mary River. This is
2 based on concerns expressed by Environment Canada.
3 Baffinland concurs and has proposed a mutually
4 agreeable and attainable effluent discharge criteria
5 for phosphorus.

6 Table F-2 provides proposed limits for oily water
7 treatment from maintenance shops. These effluent
8 streams could either be direct-discharged or mixed with
9 the treated effluent stream. The oily water treatment
10 process in the maintenance shop will be a dedicated
11 fixed system. The effluent stream originates mainly
12 from the washing of vehicles. These treatment plants
13 will be designed to recycle water to minimize potential
14 discharge volumes. For these systems, there would be
15 the option of mixing the oily water effluent into the
16 sewage treatment effluent stream or pond, and this
17 mixing of effluent is what we intend to do.

18 The second category for oily water treatment is
19 for seasonal oily storm water originating from snow
20 melt and precipitation in bulk fuel containment berms,
21 smaller fuel berms, and from the landfarm. The
22 treatment system is a mobile modular unit installed in
23 sea-cans that can be transported and stationed where
24 required and as necessary.

25 My colleague, Fernand Beaulac, will present this
26 section of the presentation pertaining to mine contact

1 water.

2 MR. BEAULAC: Thanks, Jim. I'm Fernand
3 Beaulac. Members of the Board, good afternoon
4 everyone.

5 The next item related to water quality for the
6 water licence application deals with mine contact
7 water.

8 Mine contact water refers to runoff water that
9 comes in contact with waste rock or ore from the mine
10 development. This runoff is channelled to
11 sedimentation ponds and monitored prior to discharge to
12 the receiving environment.

13 For this project, we have essentially four sources
14 of mine contact water, and I'll show them on this map.
15 Essentially, two of the sources originate from the ore
16 stockpile. We have a run of mine ore stockpile where
17 the runoff flows to a sedimentation pond and then
18 discharges to the receiving environment, which leads to
19 the Mary River. The second one is related to the ore
20 stockpile. Again, runoff is channelled to a
21 sedimentation pond, which flows to the Mary River.

22 The next two mine contact water discharges come
23 from the waste rock stockpile. The first one being the
24 west sedimentation pond, which discharges to a
25 catchment basin that eventually drains to Camp Lake,
26 and the final one is on the west side of the waste rock

1 stockpile, which discharges to the -- a tributary to
2 the Mary River.

3 This slide shows the minimum discharge requirement
4 for the mine contact water. These discharge criteria
5 are from the metal mining effluent regulations
6 Schedule 4. All mine contact water generated at the
7 mine site will be below these discharge criteria in
8 terms of quality.

9 Studies completed as part of the final impact --
10 the final environmental impact statement indicated that
11 the discharge of mine contact water from the waste rock
12 stockpile will have no significant effect on the
13 receiving water quality. This will be discussed
14 further under the geochemistry section of this
15 presentation. Also Section 6 of the aquatic effects
16 monitoring program framework focuses on the
17 implementation of the environmental effects monitoring
18 program, which is required under Schedule 5 of the
19 metal mining effluent regulation.

20 Geochemical water quality modelling indicates that
21 mine contact water from the waste rock stockpile and
22 the open pit area will be much lower than the metal
23 mining effluent regulation discharge criteria. In the
24 event that ongoing geochemical water quality modelling
25 or field monitoring information show a trend towards
26 significant effect on the receiving water quality, then

1 adaptive management measures would be implemented.
2 Adaptive management measures could include water
3 treatment for mine contact water. A review of feasible
4 water treatment alternatives for mine contact water is
5 found in Section 3.7.5 of the waste rock management
6 plan.

7 In their final submission, Environment Canada's
8 comment 2.4(a) suggests a lower limit for mine contact
9 water discharges. Baffinland disagrees with this
10 comment, even though Baffinland expects that its mine
11 contact water quality will be well below the metal
12 mining effluent discharge criteria. Baffinland points
13 out that Environment Canada has commenced a review of
14 the metal mining effluent regulation discharge criteria
15 and has proposed revised Schedule 4 discharge limit as
16 part of this review.

17 The review of the MMER, or metal mining effluent
18 regulation discharge criteria, will include extensive
19 stakeholder involvement and will occur over the next
20 two years. The review will likely result in changes to
21 the proposed discharge limit in the metal mining
22 effluent regulation. A final decision is expected to
23 be published in the spring of 2015. As my colleague
24 pointed out previously, any changes to the metal mining
25 effluent regulation discharge criteria will be deemed
26 to apply to the Mary River Project under Section 75 of

1 the Nunavut Waters Act.

2 The metal mining effluent regulation sets the
3 standard prescribed by the Government of Canada for
4 mine water discharges. This regulation also includes a
5 requirement for environmental effects monitoring under
6 Schedule 5 of the regulation.

7 The implementation of the environmental effects
8 monitoring program ensures that any potential effects
9 on downstream receiving water quality are identified
10 and assessed. The MMER or the metal mining effluent
11 regulation is a good regulation. Development in the
12 north is expensive, and proponent requires certainty in
13 order to proceed with large investments. The metal
14 mining effluent regulation provides this certainty.

15 It remains -- despite this, it remains the
16 obligation of the Proponent to ensure that the
17 discharge of its mine contact water is protective of
18 the receiving environment. We think that Environment
19 Canada's suggestion to reduce mine contact water
20 discharge limit as currently -- as in the current metal
21 mining effluent regulation is not consistent with this
22 regulation. In Baffinland's view, Environment Canada's
23 suggestion, 2.4(a), preempts the conclusion of the MMER
24 review currently in progress, and it also pre-empts the
25 outcome of the detailed aquatic effects monitoring
26 program proposed by the project.

1 Regarding the protection for "Northern Ecosystem",
2 the aquatics effects monitoring program, or AEMP, is
3 the mechanism under the water licence, which will
4 provide site-specific, biological, and chemical data,
5 and assessment of possible changes. This aquatic
6 effects monitoring program incorporates the requirement
7 of the environmental effect monitoring program of the
8 metal mining effluent regulation and is designed to
9 provide assessment and early warning of potential
10 effects on the ecosystem.

11 We note that the final impact assessment has
12 identified the sensitive component of the ecosystem and
13 that the aquatic effects monitoring program focuses on
14 monitoring of those components, assessing risks, and
15 implementing adaptive management when and where
16 required.

17 My colleague, Oliver, will provide a discussion on
18 Environment Canada's suggestion 2.4(b) and 2.4(c)
19 respecting receiving water quality objectives later on
20 in this presentation.

21 Two other components of the water quality include
22 the discharges from land farms and landfill siege. The
23 project will construct land farms at Milne Port the
24 land site, and Steensby Port. List will be constructed
25 at the mine site and at Steensby Port.

26 Water pooling inside land farms will be monitored

1 for quality prior to discharge. Discharge criteria for
2 water quality are presented in Table F-4, which is
3 extracted from the draft water licence document that
4 was submitted to the Board previously. We note here
5 that the oil and grease maximum average concentration
6 shown in this table should read 15 milligrams per litre
7 and not .15 milligrams per litre. We also note that
8 QIA in their final submission in Appendix B suggested
9 discharge criteria for oily water treatment plant, bulk
10 fuel contact area, landfarm water, and landfill seepage
11 water quality. Baffinland does not see the purpose for
12 having an extensive list for parameters for analysis
13 and believe that the discharge water quality criteria
14 proposed in table F-3 and F-4, and F-5 of the draft
15 water licence document are reasonable and in line with
16 discharge parameters established in other water licence
17 in Nunavut.

18 In terms of landfill seepage water, monitoring of
19 the landfill seepage water is a requirement of the
20 project certificate. This was -- I'm referring here to
21 Conditions 23 and 24 of the project certificate, and
22 Table F-5 presents a list of water quality parameters
23 that will be monitored.

24 Moving on to the waste management, which is Item 12
25 on the list of issues identified in the January 25th
26 decision, the -- other than waste rock, waste

1 management facilities include waste sorting,
2 incineration for organic camp waste and sewage
3 treatment plant sludge, landfilling of noncombustible
4 and nonhazardous wastes, landfarms for the treatment of
5 contaminated soil or snow, and temporary storage areas
6 for both hazardous and nonhazardous wastes.

7 A comprehensive waste management plan was
8 presented in support of the water licence application.
9 An operating and maintenance manual for incinerators,
10 landfarms, and landfills will be provided in the coming
11 update of this management plan.

12 All hazardous waste will be shipped off site for
13 ultimate treatment and disposal. This will happen on
14 the annual sea lift. Baffinland will also submit an
15 updated hazardous material and hazardous waste
16 management plan. This plan was already submitted as
17 part of the application. It will be updated and
18 resubmitted shortly.

19 There were very few comments in the parties' final
20 submission related to waste management. I'll just
21 discuss briefly two of them. Environment Canada made a
22 comment related to incinerator testing, stack testing,
23 and we note that this is a requirement of the project
24 certificate, and we fully agree with Environment Canada
25 on this, and it was picked up in the draft water
26 licence document as -- in Part F, Article 32 and 33.

1 QIA also made a comment regarding the landfarm
2 remediated soil. Baffinland supports QIA's
3 recommendation in that regard and proposes that the
4 remediated soil be used for reclamation work.

5 Regarding the waste rock management, an estimated
6 640 million tonnes of waste rock will be generated over
7 the life of the project. Baffinland will implement the
8 waste rock management plan, which was submitted with
9 the water licence application, and the company will
10 submit an update to this plan 60 days prior to
11 beginning pre-stripping operation.

12 The key features of the waste rock management plan
13 include an ongoing waste rock characterization program
14 for the life of the project. It also includes the
15 sorting of waste rock according to their acid-drainage
16 potential, any potentially acid-generating rock will be
17 confined to a dedicated area of the waste rock
18 stockpile and surrounded and covered by
19 nonacid-generating rock in order to prevent oxidation
20 of this rock and acid-drainage condition. And another
21 key feature of the waste rock management plan is that
22 the waste rock stockpile is confined in two distinct
23 watersheds. The surface runoff water management was
24 discussed by my colleague, Jim, earlier in this
25 presentation.

26 This schematic presents a view of the waste rock

1 stockpile, and it was presented in our waste rock
2 management plan. It essentially shows how Baffinland
3 intends to segregate and place the potentially acid
4 rock within the confine of the waste rock stockpile and
5 cap it with nonacid-generating rock.

6 The next item on the list of issues identified by
7 the -- at the technical meeting decision relates to
8 geochemistry. A considerable amount of work has been
9 completed to date on acid rock drainage and metal
10 leaching assessment. As stated earlier, Baffinland has
11 an ongoing -- has a waste rock characterization program
12 that will be ongoing for the life of the mine. An
13 update of this program will be included in the future
14 updates of the waste rock management plans.

15 A key outcome of the 2012-2014 waste
16 characterization program is that a smaller portion of
17 the waste rock is now classified as potentially
18 acid-generating. The latest drilling results indicate
19 that an estimated 11 percent of the waste rock will be
20 acid-generating, which is -- an estimated 11 percent of
21 the waste rock volume is now estimated as potentially
22 acid-generating versus 19 percent that was previously
23 estimated and used for the basis of our final impact
24 assessment.

25 Geochemical modelling is a tool used to predict
26 the mine contact water quality over time. The

1 fundamental assumptions used in geochemical modelling
2 are derived from the waste rock characterization work
3 and from the mined geological model for the ore body.
4 The waste rock characterization results determine the
5 source term for release of contaminants. It looks at
6 the composition and mineralogy of the rock, the acid
7 generation and neutralization potential of the rock,
8 and it also includes test work in humidity cell to
9 establish the amount of contaminant that will be
10 released. The geological model provides an estimate of
11 the quantities of waste rock by type either
12 acid-generating or nonacid-generating, and it also
13 provides an estimate of the mine pit wall exposure by
14 type of material and the mineralogy of the material.

15 Once the source terms, which are derived from the
16 waste rock characterization and the geological model,
17 are established, the source terms for release of
18 contaminants are combined with the geological model
19 results to predict mine contact water quality over
20 time.

21 The outstanding concerns related to geochemistry
22 and geochemical modelling were addressed at a recent
23 meeting with NRCan on February 25th of this year. All
24 the agencies and the QIA were in attendance at this
25 meeting. The key concerns are related to the
26 confidence in the predicted results for mine contact

1 water quality originating from the waste rock pile and
2 the confidence in the predicted results for mine pit
3 water quality at the end of mine life. We note that
4 the assumptions made for geochemical modelling are
5 conservative and are based on worst-case scenarios.

6 At the meeting with NRCan on the 25th of February,
7 Baffinland explained what the assumptions were, and we
8 note that all parties attending the meeting appeared
9 satisfied with the approach and the effort undertaken
10 by Baffinland with ongoing waste rock characterization
11 and mine contact water quality modelling.

12 This slide is a repeat of what I already said, so
13 I'll skip that one.

14 The next one, this slide presents a simplified
15 overview of the steps involved with geochemical
16 modelling for prediction of mine contact water quality.
17 And as I said, we believe that the geochemical model
18 used for predicting mine water quality is robust, as it
19 is based on worst-case scenarios. It overestimates the
20 quantity of potentially acid-generating rock, and it
21 also uses the result of kinetic testing for source term
22 on release of contaminants.

23 The focus of ongoing efforts for geochemical
24 modelling and prediction of mine contact water quality
25 is to improve confidence in source terms for release of
26 contaminants. Baffinland supports NRCan's

1 recommendations for the use of a field test file to
2 gather more information in that area. We note that
3 despite using with worst-case scenario, the geochemical
4 modelling completed to date indicates that mine contact
5 water quality will be well below the current MMER
6 discharge criteria for both the waste rock and the mine
7 pit contact water.

8 Baffinland is committed to protecting receiving
9 water quality. This is the reason why so much effort
10 has been placed on the geochemical modelling, with the
11 resulting prediction of the mine contact water quality,
12 Baffinland proceeded with the modelling of the effects
13 of mine contact water quality on receiving water
14 quality. This slide just outlines the steps involved
15 in this modelling.

16 Schematically, essentially what we have is the
17 source terms for contaminant loading are determined
18 with the geochemical model. This provides the
19 end-of-pipe discharges, which are all well below the
20 metal mining effluent regulation discharge criteria.
21 The end-of-pipe discharge discharges to the receiving
22 environment which -- where it mixes with the natural
23 drainage of the catchment basin. Receiving water is
24 defined as the closest visible stream to this
25 end-of-pipe discharge point. For example, for the
26 waste rock west sedimentation pond, the end-of-pipe

1 discharge point is approximately 3 kilometres from the
2 receiving stream, which is a tributary of Camp Lake.
3 Modelling of receiving water quality consists of
4 predicting the expected water quality of the receiving
5 stream or water bodies at the convergent points. For
6 the Camp Lake tributary, this is downstream of the
7 waterfall, which is considered fish-bearing waters.
8 This confluence point will be monitored with the
9 aquatic effects monitoring program.

10 To summarize the modelling work, first, the
11 geochemical modelling indicates that the end-of-pipe
12 discharges for the waste rock sedimentation ponds will
13 be well below the metal mining effluent regulation
14 discharge criteria, and this is based on modelling that
15 uses worst-case scenarios. The receiving water quality
16 modelling indicates that the discharge of mine contact
17 water from the waste rock sedimentation pond are not.
18 Expected to result in an adverse effects -- in an
19 adverse environmental effect on downstream water and
20 sediment quality. This assessment is presented in the
21 final environmental impact statement, Volume 7, Section
22 3.4.2.

23 Moving on to management plans, this was Item 14 on
24 the list of issues identified by the Board. All
25 management plans are based on the principle of
26 continual improvement and adaptive management. It is

1 important to focus management on -- to focus management
2 on mitigation measures and monitoring of relevant
3 parameters that will ensure that the project
4 certificate terms and conditions are implemented, that
5 the Type "A" water licence terms and conditions are
6 implemented and that the company's commitment, goals,
7 and objectives are achieved. Management plans are
8 living documents that require updating on a regular
9 basis on actual field performance. Baffinland requests
10 that the Board approve the management plans submitted
11 with the water licence application. These plans have
12 been circulated and commented upon since February 2012.
13 The company acknowledges that these management plans
14 will be updated following the issuance of the Type "A"
15 water licence.

16 Concerning the update of these management plans,
17 updates of key management plans have already been
18 submitted to the Board in March and April of this year
19 and support of the existing Type "B" water licence as
20 well as the anticipated 2013 work plan. This slide
21 simply lists the number of plans that have already been
22 updated and submitted to the Board.

23 Additional management plans are to come mainly for
24 the Milne Port oil pollution emergency plan and a
25 quarry management plan for the mine site quarry
26 designated as QMR2. As mentioned earlier, the waste

1 rock management plan will be updated and submitted
2 60 days prior to mine pre-stripping. The blasting
3 management plan is a requirement of the project
4 certificate, Conditions 44 and 48. Baffinland
5 submitted a quarry management plan for the Milne Inlet
6 quarry, Q1, on March 14, 2013. This management plan is
7 now out for review, and it contains blasting operation
8 management plan specific to this quarry. Similar
9 management plans will be submitted for each quarry
10 development. Baffinland expects to have distinct
11 blasting management plan for the mining operation, the
12 tunnelling for the railway, and for blasting in or near
13 water bodies where appropriate.

14 Regarding the blasting management plan, the
15 concerns expressed by the reviewers are related to the
16 entrainment of excessive amount of ammonia or nitrate
17 in water bodies adjacent to the quarry. Explosives
18 contain ammonium nitrate, and potentially elevated
19 levels of residual ammonia, nitrite, or nitrate could
20 result if these compounds are entrained in surface
21 waters. This will be prevented with the implementation
22 of best management practices as it relates to the use
23 of explosives.

24 We note here that Baffinland's quarry are located
25 at least 30 metres from fish-bearing water bodies. To
26 put this in perspective, there are thousands of quarry

1 operation or road construction projects across North
2 America near water bodies that use aggregates obtained
3 from quarries. There are very few, if any, incidents
4 of eutrophication or -- of water bodies caused by the
5 use of aggregate obtained from quarries or the use of
6 explosives in a quarry.

7 Baffinland believes that the concerns over
8 excessive explosive residues entrainment to water
9 bodies is addressed through the implementation of
10 best-management practices for the use of explosives.
11 This approach minimizes waste of explosives due to
12 spillage. The management plan submitted for the Milne
13 Inlet quarry provides example of what these
14 best-management practices are and how they will be
15 implemented at the quarry sites.

16 Specifically Section 2.11 of this quarry
17 management plan addresses performance monitoring which
18 includes ammonia and nitrate monitoring of surface
19 water flows to fish-bearing waters. In the event that
20 performance monitoring indicates that the targets are
21 not being met, corrective action will be taken to
22 improve performance, and contingency measures will be
23 taken to prevent the discharge of acutely toxic ammonia
24 discharges to the aquatic receiving environment. We
25 believe that this approach addresses QIA's concern
26 related to performance monitoring at quarries.

1 Next item on the list of issues was contingency
2 planning. An emergency response and spill contingency
3 plan was submitted to the Board as part of the water
4 licence application. This management plan is updated
5 on an annual basis to reflect a level and scale of
6 activity at the work site. The latest update of this
7 plan was submitted to the Board on March 31st, and the
8 intent is to support the level of activities that will
9 occur during 2013. The next update is scheduled for
10 the year-end of 2014 in anticipation of the 2014 work
11 level. We note here that we have developed a list
12 of -- we have proposed terms and conditions that could
13 be used for emergency response and spill contingency
14 planning in Part I of the draft water licence document.

15 Over to you Oliver.

16 MR. CURRAN: Thank you, Fernand. So this
17 portion of the presentation that I will speak to
18 addresses the topic of monitoring that was listed in
19 the Nunavut Water Board's pre-hearing conference
20 decision on page 16. The aquatic effects monitoring
21 program or AEMP aims to address issues identified
22 during the environmental assessment process that could
23 potentially impact the aquatic receiving environments
24 surrounding the project development. Building from
25 earlier baseline monitoring, the aquatic effects
26 monitoring program describes the general monitoring

1 strategy designed to detect effects in the freshwater
2 aquatic environment. Baffinland has implemented
3 mitigation measures in the project to minimize adverse
4 effects. Several management plans and monitoring plans
5 are intended to inform the adaptive management process,
6 which relies on the early identification of potential
7 problems and the development of additional mitigation
8 options to address them.

9 The aquatic effects monitoring program is designed
10 to detect project-related impacts at both a temporal
11 and spatial scale that are ecologically relevant. The
12 program targets flows, general water and sediment
13 quality, primary productivity, and benthic community
14 structure of the streams and lakes potentially impacted
15 by project activities. The proposed approach is to
16 structure the aquatic effects monitoring program to
17 serve as an overarching umbrella into which the results
18 of all related monitoring programs for the Type "A"
19 water licence are captured. I will provide a flow
20 diagram explaining this a bit later in this portion of
21 the presentation.

22 THE CHAIR: Excuse me, I think we're due
23 for a 15-minute break, if that's okay with you. Can
24 you hold that thought?

25 MR. CURRAN: Sure, that's fine, thank you.
26 Yeah.

1 THE CHAIR: Thank you.

2 (ADJOURNMENT)

3 THE CHAIR: Welcome back. Baffinland,
4 whenever you're ready, you can carry on with your
5 presentation.

6 MR. CURRAN: Thank you, Mr. Chair.

7 So continuing on with Slide 115. The aquatic
8 effects monitoring program framework is the result of
9 the cooperation of the Nunavut Water Board Staff,
10 Environment Canada, Fisheries and Oceans, the Qikiqtani
11 Inuit Association, and Aboriginal Affairs and Northern
12 Development Canada. There were two workshops spanning
13 numerous hours of discussion as well as follow-up calls
14 to discuss specific follow-up items. Reviewers
15 commented on the aquatic effects monitoring program
16 framework in their final submissions to the Water
17 Board. The key comments related to Schedule 5 of the
18 aquatic effects monitoring program framework which
19 speak to the benchmarking criteria to be used for
20 specific levels of action and what those management
21 responses or actions could include.

22 The draft approach included in Schedule 5 of the
23 aquatic effects monitoring program framework is
24 included as Schedule J-1 of Baffinland's proposed terms
25 and conditions working document. Comments received
26 from the Qikiqtani Inuit Association and Environment

1 Canada on this draft approach suggested the need for an
2 early warning system. In response, the approach has
3 been revised to include an early warning system, as I
4 will discuss a bit later in the presentation.

5 Aquatic effects monitoring program benchmarks will
6 be protective of the aquatic ecosystem. They will be
7 the Canadian Council of Ministers of the Environment,
8 the CCME, water quality and sediment quality
9 guidelines, which are widely used across Canada. In
10 some cases, Baffinland will develop site-specific
11 guidelines, and the development of these guidelines
12 will follow widely accepted practices laid out by the
13 Canadian Council of Ministers of the Environment. The
14 aquatic effects monitoring program will include a
15 management response framework that embraces an adaptive
16 management approach. It is Baffinland's intent to
17 organize a third workshop to finalize the management
18 response framework component of the aquatic effects
19 monitoring program.

20 So this slide here lays out the systemic approach
21 of how the sediment and surface water data will be
22 evaluated and the triggers for various actions and what
23 the management responses will be. So before I read
24 through and describe some of these steps, I'll just go
25 through the flow diagram and point some of the main
26 components out here for you. So Step 1 over here

1 relates to the statistical evaluation of data that's
2 collected in the field. This entire process here is
3 your data assessment.

4 Step 2 here is where you're comparing data to the
5 aquatic effects monitoring program benchmark, which is
6 really your Canadian Council of Ministers of the
7 Environment criteria and/or site-specific criteria.

8 And then Step 3 over here, these are all your
9 levels of action that can be taken, so Environment
10 Canada, the Qikiqtani Inuit Association asked us to
11 break this out a little bit more, so we've described
12 what the management responses could be in a low action,
13 moderate, and high.

14 And then Step 4 is along the right-hand side, and
15 these are all the potential management responses that
16 can be taken based on what you are observing in the
17 environment. And then, of course, there's this
18 feedback loop that can be used to redesign your study
19 and do adaptive management, if required. So I'll just
20 read through this a little bit now in a little bit more
21 detail.

22 So if we start at the top, the study design of the
23 aquatic effects monitoring program lays out the
24 monitoring program. As we collect the monitoring data,
25 it will go through a quality assurance program to
26 ensure the data is of high quality. We then move into

1 a broad data assessment stage, which has four main
2 steps to it. So Step 1 involves a statistical
3 evaluation of the data against reference or baseline
4 data. If the data are the same as reference or
5 baseline, that means there has been no change to the
6 environment and no action is required. So we go back
7 down to here.

8 If the data indicate that there has been a change,
9 then we need to determine if that is related to the
10 mine. If the answer is yes, then we move to Step 2,
11 which is comparing the data to the benchmarks, which
12 are protective of the environment. Depending on how
13 the data compare to the benchmarks, there are three
14 different levels of action, which is our Step 3, which
15 include a low, moderate, and high action response. The
16 management responses laid out in Step 4 are different
17 depending upon the level of action required. They
18 range from looking at the trends of the data over the
19 past number of years to understand if it is increasing,
20 and if so, what are the likely sources and will they
21 continue to contribute.

22 Other actions include increasing monitoring and
23 implementing mitigation to reduce continued
24 contributions to the environment and assessing the
25 risks to the environment. Also, there are feedback
26 loops to the design so that changes to the design can

1 be made if there is a need to modify monitoring based
2 on what the data are telling us. This approach is
3 systematic, and it includes prescribed actions which
4 will assist in minimizing impacts to the receiving
5 environment related to mine releases.

6 The AEMP or the aquatic effects monitoring program
7 will be implemented in two phases. Phase 1 of the
8 aquatic effects monitoring program will be implemented
9 following the issuance of the licence, and Phase 2 of
10 the aquatic effects monitoring program will be
11 implemented at the commencement of mining operations.

12 The general monitoring requirements are presented
13 in Part J of Baffinland's proposed terms and conditions
14 of the licence, and as a reminder, the aquatic effects
15 monitoring program is presented in Schedule J-1 of
16 Baffinland's draft terms and conditions and the
17 proposed annual reporting requirements are outlined in
18 Schedule J-2.

19 This concludes the monitoring portion of the
20 presentation, so I'll turn it back over to Erik to
21 complete this presentation.

22 MR. MADSEN: Thank you, Oliver.

23 Mr. Chairman, I will complete our presentation on
24 the next few slides discussing the list of issues
25 related to Item 7, which was closure and reclamation,
26 and Item 5 which was on security bonding.

1 When Baffinland submitted its original Type "A"
2 water licence application back in February 2012, a
3 preliminary abandonment and restoration -- reclamation
4 plan was submitted. This plan outlined the company's
5 reclamation goals and objectives and was prepared
6 following various policies and guidelines such as the
7 Qikiqtani Inuit Association's abandonment and
8 reclamation policy and Aboriginal and Northern
9 Development's (sic) site reclamation policy and
10 guidelines.

11 Baffinland proposes to update its abandonment and
12 reclamation plan on an annual basis for the first
13 initial years of the project, which will also include
14 an updated annual closure cost estimate for activities
15 planned for the upcoming year. Once construction is
16 complete, similar to other Type "A" licences in
17 Nunavut, Baffinland proposes to update this plan every
18 three to five years. Therefore, there will most likely
19 be three to four interim abandonment and reclamation
20 plans submitted for review and approval prior to the
21 final closure and reclamation plan. We recognize that
22 this final plan will require ultimate approval by the
23 landowner, the Crown, and the Nunavut Water Board.

24 As was committed at the technical hearings held in
25 January, Baffinland submitted a work plan for the 2013
26 planned activities as well as a closure cost estimate

1 related to that work. That closure cost estimate was
2 prepared using the reclaim model, which is a recognized
3 methodology of the Nunavut Water Board and Aboriginal
4 Affairs and Northern Development Canada. Baffinland
5 used the reclaim model to estimate the marginal costs
6 associated with the implementation of the 2013 work
7 plan, and Baffinland also acknowledges that the reclaim
8 model is not consistent with Qikiqtani Inuit
9 Association's policy. The updated cost estimate for
10 abandonment and reclamation is a hybrid estimate that
11 uses both the reclaim methodology and the Qikiqtani
12 Inuit Association policy guidelines. And after a
13 recent meeting with the Qikiqtani Inuit Association,
14 Baffinland went back and revised this closure cost
15 estimate, which was submitted April 5th, to meet all of
16 Qikiqtani Inuit Association's policies for abandonment
17 and reclamation, and this is reflected in the latest
18 updated closure cost estimate that was submitted.

19 These latest closure cost estimates have been
20 discussed with both the Qikiqtani Inuit Association and
21 Aboriginal Affairs and Development Canada, and there
22 now appears to be agreement on the approximate amount
23 of security proposed for the 2013 work plan. At the
24 same time, under existing Type "B" water licence, on
25 March 31st, an updated abandonment and reclamation plan
26 was submitted to the Board and the Qikiqtani Inuit

1 Association.

2 There has been some concern expressed by
3 regulators, especially Aboriginal Affairs and Northern
4 Development Canada, that there could be a potential for
5 a legacy concern related to the pit lake water quality.
6 This concern is that water quality objectives will not
7 meet the acceptable discharge limits once the pit is
8 eventually filled with water, and this will take
9 between 85 and 150 years after mining stops in Deposit
10 No. 1.

11 AMEC Engineering has developed water quality
12 estimates through modelling predictions for the final
13 year of mining, which will be year 21, and these
14 estimates show that pH levels have the possibility to
15 be in the range of 4.2, which is outside the metal
16 mining effluent regulations' range of 6 to 9.0.
17 Baffinland has regularly stated that the commitment of
18 ongoing waste rock characterization through drilling
19 programs and subsequent updates to the models and will
20 have time to obtain a better understanding of eventual
21 pit water quality and to develop mitigation measures
22 moving forward, including water treatment, if required.

23 It also must be noted that Baffinland's operation
24 is unique in that it will be virtually mining a
25 mountain, and it will take upwards of 10 years before
26 an actual pit will be developed. This will be

1 visualized in the next slide. Baffinland is confident
2 that future modelling will demonstrate that the metal
3 mining effluent regulation criteria can be met, and
4 ultimately, as has been discussed earlier, Baffinland
5 must comply with the metal mining effluent criteria.

6 This picture here shows Deposit No. 1, and it
7 visualizes what I had mentioned that this is a unique
8 property, that you're virtually -- you're mining a
9 mountain, scraping off the top of the mountain as you
10 move down, and it will take years of open-pit mining,
11 approximately 10 years, before the pit reaches a level
12 where it will actually have a bowl formed, and then
13 mining will continue for an additional 11 years, and
14 that is when the pit walls in the pit will be exposed
15 to weathering. As noted in the previous slide, through
16 ongoing drilling and characterization of rock,
17 Baffinland will have a more complete understanding of
18 the potential water quality generated from the exposure
19 of these pit walls to weathering over this 10-year
20 period.

21 I'm going to move on to the next slide because I
22 discussed these points.

23 Baffinland is committed to providing updates from
24 this ongoing waste characterization program, including
25 updates to modelling predictions to the Nunavut Water
26 Board, and subsequent updates to the interim

1 abandonment and restoration plan. It is anticipated
2 that the Board will include a clause in the licence to
3 ensure that data is regularly submitted. Future
4 updates to the interim plan will also include
5 mitigation approaches to deal with future predicted
6 water quality. It should be noted that the final
7 closure plan, which is usually required to be submitted
8 approximately five years prior to closure, again, will
9 require both the landowner and the Nunavut Water Board
10 approval.

11 The last topic I'd like to discuss is the topic
12 about security bonding. As a result of the technical
13 hearings, Baffinland was requested to address the list
14 of issues as identified in Item 5 of the pre-hearing
15 report. This required the Proponent to provide a
16 breakdown on the amount of security that would remain
17 with the Type "B" water licence and the amount of
18 security that would be proposed for the future Type "A"
19 water licence. The numbers outlined on this slide show
20 the overall estimated total security for both land and
21 water to be approximately \$37.25 million. The
22 breakdown of these costs are 94 percent related to land
23 liabilities and 6 percent related to water liabilities.

24 So in summary, if looking at the slide, the
25 Type "B", the amount is saying about -- that
26 1.25 million would remain in the Type "B", and the

1 amount that's already in the Type "B", which would be
2 about 22 million would be carried over, so the 22
3 million would be carried over to Type "A", and the work
4 that would be done in 2013 would account for about
5 \$13.3 million, and when you add that up, there's a
6 total of about \$36 million that is being proposed for
7 the total security for the land and water.

8 Baffinland provides the following recommendations
9 on how security deposits could be set, that there
10 should be one approved closure plan that covers the
11 activities proposed for the upcoming year, that this
12 plan must be acceptable to the landowner, the Nunavut
13 Water Board, and Aboriginal Affairs and Northern
14 Development Canada, that there should only be one
15 security bond that covers both land- and water-related
16 liabilities. And once again, as we've stated a number
17 of times, Baffinland will not overbond, an issue that
18 has been around for a few years here in Nunavut.

19 As many parties are aware, the issue of
20 overbonding has been an issue for developers in Nunavut
21 for a number of years. A working group has been formed
22 with a number of representative parties presently at
23 this hearing. This group's mandate, made up of
24 residents from the regional Inuit association, the
25 Nunavut Water Board, and Aboriginal Affairs and
26 Northern Canada is to reach a solution moving forward

1 on this issue.

2 As noted earlier, Baffinland supports and
3 recommends one security amount for both land and water
4 liabilities and has presented three solutions as to how
5 security can be held. The first option is for the
6 total amount of security for land and water to be held
7 by the landowner, and in this case, the Qikiqtani Inuit
8 Association, and this would require that the Qikiqtani
9 Inuit Association and Aboriginal Affairs work to have
10 an agreement on to how they will share and access
11 securities, if required.

12 A second method would be that the total amount of
13 security for land and water be held by Aboriginal
14 Affairs and Northern Development, and with the QIA and
15 AANDC have an agreement on how they will share and
16 access securities, if required.

17 And a third mechanism could be that the total
18 amount of security be held at a bank, and a beneficiary
19 note be provided to the landowner for the percentage of
20 total security related to land-based liabilities and
21 another beneficiary note provided to Aboriginal Affairs
22 and Northern Development for the percentage of
23 water-based liabilities.

24 So I guess to clarify, we also are saying that
25 both the QIA and Aboriginal and Northern Affairs Canada
26 can hold the amount, but it will be only for one total

1 amount for that security for land and water.

2 Baffinland has noted in its earlier slides that it
3 recommends that an annual work plan as well as an
4 updated closure cost estimate be -- for the upcoming be
5 submitted. The proposed date for this submission is
6 November 1st of each year. It will then be up to the
7 Proponent, similarly as it was done in March and April
8 of this year, to get the landowner, the Nunavut Water
9 Board, and Aboriginal Affairs and Northern Development
10 Canada to meet and review the closure cost estimate and
11 to ultimately agree on the next year's estimate.

12 Should the parties not agree, then we would look for
13 the Nunavut Water Board to set the amount. Once the
14 amount is determined, then Baffinland would post by
15 March 1st of each year the agreed amount total security
16 for that upcoming year. This would allow the bond to
17 be in place before the yearly sea lift, as the majority
18 of equipment and supplies to support the ongoing
19 project activities would not be able to occur until the
20 annual sea lift. Baffinland suggests the Board
21 consider such a clause in the licence.

22 Baffinland would like to summarize that under
23 Part C of proposed terms and conditions, it has
24 proposed conditions applying to security. In Part K,
25 Article 2 of the proposed terms and conditions,
26 Baffinland has suggested conditions as to how future

1 posting of security amounts can be held. Once again,
2 Baffinland proposes that the total security of 37.25
3 million be required both for land- and water-related
4 liabilities up to the end of 2013, and that includes
5 the Class "B" water licence.

6 One of the actions from the January technical
7 hearings was for Baffinland to provide updated
8 financial information as per Section 57(B) of the
9 Nunavut Waters Act, and Baffinland would like to
10 confirm that this information has been submitted to the
11 Nunavut Water Board.

12 In conclusion, on behalf of the Baffinland team,
13 its numerous consultants, we would like to extend our
14 appreciation to the Nunavut Water Board, Nunavut Water
15 Board Staff, the Qikiqtani Inuit Association, and all
16 the regulatory agencies and as well as the communities
17 that have undertaken an extensive, time-consuming, and
18 thorough review of this application.

19 It is our view that we have put forward an
20 application with monitoring and management plans,
21 including some proposed terms and conditions, that
22 would allow the Board to consider and be in a position
23 to develop and issue a Type "A" water licence that will
24 mitigate and protect any future water quality or
25 quantity effects from the Mary River Project.

26 Our team looks forward over the next few days to

1 discuss and address any questions or concerns that the
2 Nunavut Water Board or any parties or the general
3 public may have. Baffinland looks forward to
4 commencing 2013 work activities under its existing
5 Type "B" licence and hopefully in the future with a new
6 Type "B" water licence in May, and then to continue
7 works under this new Type "A" water licence once
8 issued. This will then allow training and hiring of
9 North Baffin residents to commence and allow the
10 project to start to proceed.

11 Qujannamiik, thank you very much, Mr. Chairman.
12 That completes our presentation.

13 THE CHAIR: Thank you very much. Now, on
14 my agenda item, I have questioning by other parties.
15 Number 1 will be Nunavut Tunngavik, number 2, Qikiqtani
16 Inuit Association, 3, Aboriginal Affairs and Northern
17 Development Canada, 4, Environment Canada, Fisheries
18 and Oceans Canada, Natural Resources Canada, Government
19 of Nunavut, and community representatives from Hall
20 Beach, Arctic Bay, Igloolik, and Clyde River, and any
21 Elders or community representatives from Pond Inlet
22 that have questions.

23 Back to the top, first off, we have NTI, Nunavut
24 Tunngavik Inc., questions to the Applicant. If you
25 have any questions come up to the microphone and ask
26 questions. No questions?

1 MR. ITORCHEAK: Good afternoon, Mr. Chairman
2 and David and Ross. I'm here on behalf of NTI. Paul
3 Irngaut was not able to come yesterday or last night,
4 but he might be on his way right now, and he's the
5 actual representative on behalf of Nunavut Tunngavik
6 Incorporated, and he looks after the Mary River file
7 and the Baffinland project. I'm here as the alternate
8 designate to just make a few comments. I don't have
9 any questions. I'm not here to ask any questions to
10 any party, either to the Board or to the Applicant.

11 So just to quickly do my presentation, and it will
12 be in English, but I have the interpreters'/
13 translators's copy of the transcript, so I may be a
14 little quick, but I'll try and keep it slow. Thank
15 you.

16 My name is Adla Itorcheak, and I'm from NTI,
17 Policy Analyst. My background is mostly accounting.
18 I've worked with NTI Nunavut Tunngavik for the last
19 year-and-a-half, and I was brought here because Paul
20 Irngaut had some illness to look after, but I think
21 he's recovered well enough. He's coming -- should be
22 coming in tonight.

23 Okay, the Mary River is located, as everyone
24 should be aware, on Inuit-owned lands, Parcel PI17,
25 Inuit through NTI are owners of the minerals under this
26 parcel. Deposit No. 1, the proposed mine itself, is on

1 a grandfathered mineral lease. As such, the
2 administration of the lease and the calculations of the
3 royalties is carried out by Aboriginal Affairs and
4 Northern Development Canada. The royalties are
5 calculated according to the Northwest Territories and
6 Nunavut Mining Regulations, and as Inuit-owned
7 minerals, all royalties and fees collected by
8 Aboriginal Affairs and Northern Development Canada that
9 come from this lease are transferred from the
10 Government to NTI after they are collected.

11 NTI has three major policies that will be related
12 to this project. These are the mining policy, the
13 reclamation policy, the resource revenue policy.

14 THE CHAIR: Do you have any questions to
15 the Applicant? There will come a time when you can
16 give a presentation on behalf of NTI, but right now,
17 for the time being, if you have any questions to the
18 Applicant, by all means ask questions, and then you
19 will have the opportunity to come up later and do a
20 presentation.

21 MR. ITORCHEAK: Okay, sorry about that. NTI
22 at the present does not have questions to the
23 Applicant. Thank you.

24 THE CHAIR: Thank you. Next we have
25 Qikiqtani Inuit Association questions to the Applicant.

26 MS. MEADOWS: Mr. Chair, if I might, just a

1 quick -- thank you, Mr. Chair. It's Teresa Meadows,
2 legal counsel for the Nunavut Water Board. For the
3 benefit of the court reporter, can you please state
4 your name before you ask your question? Thank you.

5 THE CHAIR: I think she said clearly and
6 precisely.

7 QIA QUESTIONS BAFFINLAND:

8 MR. WILLIAMSON BATHORY: Qujannamiik, Iksivautaaq.
9 Stephen Williamson Bathory with the QIA. I'm joined by
10 Solomon Awa and Jamie Van Gulck. We would like to ask
11 a couple basic questions of the Proponent if we could.

12 THE CHAIR: Go ahead.

13 MR. WILLIAMSON BATHORY: Qujannamiik. And first off,
14 we'd like to thank the Board for allowing us to ask
15 these questions, as well as to thank the Proponent for
16 a very straightforward and comprehensive presentation.

17 The questions we'd like to raise are specifically
18 in relation to the topic of the aquatic effects
19 monitoring program. That was a topic, I believe,
20 Mr. Oliver Curran was presenting on most recently after
21 the lunch break.

22 In the presentation, we were thankful to learn
23 that the Proponent is looking to hold a third workshop
24 on the aquatic effects monitoring program, and that QIA
25 would be invited to participate in that. It also
26 looked like there was some modifications that we can

1 further address in our presentation likely this
2 afternoon or tomorrow.

3 The one question we would like to pose to
4 Baffinland is simply we're looking to confirm that
5 Baffinland is open to further recommendations on how to
6 modify and advance the AEMP towards an eventual final
7 product that could be implemented. Here we note that
8 there were two phases, a construction phase and an
9 operation phase. So thank you.

10 THE CHAIR: Thank you. Applicant?

11 MR. CURRAN: Thank you, Mr. Chair, and
12 thank you, Stephen, for that question.

13 Yeah, absolutely, we intend to --

14 THE CHAIR: Your name?

15 MR. CURRAN: Sorry, my name is Oliver
16 Curran with Baffinland.

17 We do intend to hold a third workshop on the
18 aquatic effects monitoring program. At present, it is
19 a framework, and so we recognize that there is
20 additional work to be done to finalize some aspects in
21 the framework, and we will certainly, you know, have
22 these workshops in consultation with Environment
23 Canada, the Water Board Staff, the Qikiqtani Inuit
24 Association, Fisheries and Oceans, and Aboriginal
25 Affairs and Northern Development Canada.

26 MR. WILLIAMSON BATHORY: Qujannamiik, Iksivautaaq.

1 Just a follow-up question to that, if I could.

2 In relation to advancing the aquatic effects
3 monitoring framework (sic) towards a finalized product,
4 can Baffinland confirm if it has the intention to offer
5 a focus specifically to project activities on
6 Inuit-owned lands within that framework? Thank you.

7 THE CHAIR: Applicant?

8 MR. CURRAN: Oliver Curran with Baffinland.

9 Thank you Mr. Chair. Thanks for that question,
10 Stephen.

11 Yeah, I can confirm that the mine operations are
12 on Inuit-owned land, and as such, many of the aquatic
13 effects monitoring program components would be
14 conducted on Inuit-owned land as well as Crown land.
15 Thank you.

16 THE CHAIR: QIA?

17 MR. WILLIAMSON BATHORY: Qujannamiik. As we advance
18 beyond the framework into the actual implementation of
19 the plan, the assumption is the plan will be modified
20 over the life of the project. There would be potential
21 changes as a result of many features, but the question
22 here specifically is does Baffinland agree that, once
23 the plan is established, that it can be modified
24 through reasonable request of an interested party;
25 meaning an interested party could raise a matter that
26 could possibly require the aquatic effects monitoring

1 plan to be modified as a result of project activities?

2 THE CHAIR: Applicant?

3 MR. CURRAN: Thank you, Mr. Chair. It's
4 Oliver Curran with Baffinland.

5 Yeah, Stephen, as I had pointed out on Slide 118,
6 that was an example of our assessment approach for the
7 water quality and sediment aspects of the aquatic
8 effects monitoring program, and so by design, there is
9 adaptive management built into that framework. So
10 you're constantly collecting site-specific data in the
11 field, assessing that data, making conclusions, and
12 making revisions as necessary. So the aquatic effects
13 monitoring program would be reported on on an annual
14 basis as part of the water licence application. So by
15 design, it would certainly evolve over the life of the
16 project and involve consultation with all of the
17 interested parties. And Anne Wilson with Environment
18 Canada, during her presentation, may touch on this or
19 be able to add additional experience, as she has
20 overseen many aquatic effects monitoring programs in
21 Canada and could probably shed some light on how this
22 process works.

23 THE CHAIR: QIA?

24 MR. WILLIAMSON BATHORY: Qujannamiik, Iksivautaaq.

25 So I think Mr. Curran raised an important point,
26 that the aquatic effects monitoring program will be

1 modified over the life of the project, and that
2 modification would include annual reporting whereby
3 interested parties could make reasonable requests to
4 see further modifications of the aquatic effects
5 monitoring program, if required. So again, just
6 looking to confirm that it would be the annual
7 reporting event that would afford parties such as QIA
8 an opportunity to present a reasonable request for
9 modification of the program. Qujannamiik.

10 THE CHAIR: Applicant?

11 MR. CURRAN: Thank you, Mr. Chair. Oliver
12 Curran with Baffinland. Thanks for the question,
13 Stephen.

14 So Baffinland can confirm that that would occur,
15 and also under the Inuit Impacts Benefit Agreement,
16 there's also a mechanism there for review as well.

17 THE CHAIR: QIA?

18 MR. WILLIAMSON BATHORY: Qujannamiik. A question just
19 relating back to the framework itself, just looking for
20 clarification. At present, is Baffinland considering
21 collecting any additional information from a baseline
22 perspective that would inform either the development of
23 the framework or the design of the actual program
24 specifically during the initial construction phase?
25 Thank you.

26 THE CHAIR: Applicant?

1 MR. CURRAN: Thank you, Mr. Chair. Oliver
2 Curran with Baffinland. Thanks for the question,
3 Stephen.

4 So as you would be aware and Solomon would be
5 aware and the various consultants you've had involved
6 with the workshops that we have discussed the
7 requirement for baseline data collection going forward,
8 including 2013, and so Solomon and your consultants
9 would recall that, you know, we have discussed the
10 requirements for 2013, and we currently have plans to
11 undertake fieldwork in relation to the aquatic effects
12 monitoring program.

13 THE CHAIR: QIA?

14 MR. WILLIAMSON BATHORY: Qujannamiik. Just a follow-up
15 question there, and here I'm looking specifically at
16 Section 5.8, page 56, paragraph 4, Subsections 1, 2,
17 and 3 of the draft aquatic effects monitoring
18 framework. This section speaks specifically to the
19 collection of Inuit Qavjimajatuqangit and just looking
20 to confirm with Baffinland if what they presented there
21 would be an example of a possible additional baseline
22 collection activity that could be pursued in concert
23 with finalizing the framework? Thank you.

24 THE CHAIR: Applicant?

25 MR. CURRAN: Oliver Curran with Baffinland.
26 Thanks, Stephen.

1 Yeah, I can confirm that 5.8 is a framework that
2 we have proposed in consultation with all interested
3 parties, including the Qikiqtani Inuit Association.

4 THE CHAIR: QIA?

5 MR. WILLIAMSON BATHORY: Qujannamiik. Just one
6 follow-up question, that then in the context of that
7 framework, would Baffinland entertain the possibility
8 of collecting information as it may pertain to
9 Inuit-owned lands within the project area?
10 Qujannamiik.

11 THE CHAIR: Applicant?

12 MR. CURRAN: Oliver Curran with Baffinland.
13 Thanks for the question, Stephen.

14 So, yeah, as per Section 5.8 and what we propose
15 here under the framework is the collection and/or
16 consultation with Inuit on baseline conditions on
17 Inuit-owned land.

18 THE CHAIR: QIA?

19 MR. WILLIAMSON BATHORY: Qujannamiik. I have no
20 further questions as it pertains to the aquatic effects
21 monitoring program. I'd just like one moment to
22 consult the people with me at the table to see if they
23 have anything further of Baffinland.

24 MR. AWA: Thank you, Mr. Chair. I am
25 Solomon Awa. I work for the QIA here in Iqaluit.

26 Our questions, we have many questions, but we will

1 leave the questions open to the community members of
2 Pond Inlet, and the QIA, we'll make our statements
3 also. So we don't have too many questions at this
4 time.

5 MR. WILLIAMSON BATHORY: Qujannamiik, Iksivautaaq. I'd
6 just like to thank you again for the opportunity to
7 raise some questions, and to thank Baffinland for the
8 presentation given today.

9 THE CHAIR: Thank you. Next we have
10 Aboriginal Affairs and Northern Development Canada.

11 AANDC QUESTIONS BAFFINLAND:

12 MR. BALL: Thank you, Mr. Chair. It's
13 Murray Ball with Aboriginal Affairs.

14 I have one question regarding the pit lake
15 mitigation options. I notice that the company had,
16 Baffinland had put forward the proposal of possibly
17 treating water and pit quality in pit lake as a way of
18 mitigating its potential issues with water quality, and
19 I'd just like to clarify, the company had, at the
20 technical meeting, proposed an alternative mitigation,
21 which was using accelerated fill so that the pit would
22 be filled more quickly by pumping water into it and
23 thereby allowing less opportunity for the water quality
24 to be negatively affected. So my question is is the
25 company -- would the company still consider the
26 mitigation option of accelerated fill?

1 Thank you.

2 THE CHAIR: Applicant?

3 MR. MADSEN: It's Erik Madsen with
4 Baffinland.

5 I guess the quick answer, Murray, is yes, that was
6 discussed at the technical hearings, and as part of
7 this future information we will collect, we will gain
8 more information, and that's one of the options that
9 would still be out there is if we had to look at
10 accelerated pit in-filling, and we did provide numbers
11 at the technical hearing that showed roughly the time
12 frame and the volume of water it would take to fill
13 those pits.

14 So in the future, as we collect more information
15 and update the plan yearly and we learn more, that's
16 probably one of the options that we would move forward
17 with to pursue, and like you say, the eventual of
18 having to have to treat, that's still an option out
19 there too, but the accelerating of the pit is, yes, is
20 an option that we would pursue.

21 THE CHAIR: Aboriginal Affairs?

22 MR. BALL: Thank you, Mr. Chair, and
23 thank you, Baffinland. No further questions at this
24 time.

25 THE CHAIR: Thank you. Next we have
26 Environment Canada.

1 EC QUESTIONS BAFFINLAND:

2 MS. WILSON: Thank you, Mr. Chairman. It's
3 Anne Wilson with Environment Canada here.

4 I do have a few questions of clarification with
5 respect to water management and another one with
6 respect to monitoring.

7 So with respect to water management, I'm a little
8 confused on the treated waste water as to when it will
9 be going into the proposed polishing waste
10 stabilization ponds and wanted to confirm that that
11 would be a collection pond as opposed to a direct
12 discharge to surface waters.

13 THE CHAIR: Applicant?

14 MR. MILLARD: James Millard from Baffinland.
15 Thanks, Anne, and thank you, Mr. Chair.

16 I assume you're speaking about the oily water, so
17 I'll make that -- oily water treatment, I'll make that
18 assumption to start. The oily water treatment will,
19 just try to clarify, will come from two sources at the
20 camps. The first source of oily water effluent would
21 be from the maintenance shop. That water, as I
22 confirmed in my presentation, would end up in the
23 general waste water stream and would end up in a pond
24 prior to discharge. The second type of oily water
25 effluent would be from bulk fuel storage areas and from
26 the landfarm. So depending on the site, well, one

1 thing I can say for sure is that the landfarm, the
2 preferred option, and what we would like to do for the
3 landfarm effluent would be to discharge that to the
4 adjacent land surface.

5 Now, for the bulk fuel storage areas, that's a bit
6 more complicated in that there's a lot of snow drifting
7 in during the winter, so we end up with a lot of melt
8 water in the springtime, upwards -- as an example, the
9 existing fuel berm that we have at site will collect
10 upwards to 1 to 2 million litres of water. That water
11 we presently direct discharge to the receiving
12 environment, and we would like that to continue to have
13 that option in the future, to have that direct
14 discharge option. And the reason for that is that the
15 ponds simply do not have that sort of design capacity,
16 nor do we think it's required. We would like to
17 maintain storage in the ponds for the primary purpose
18 of storage of treated effluent or offspec. effluent.

19 THE CHAIR: Environment Canada?

20 MS. WILSON: Thank you. It's Anne Wilson.

21 That substantially answers my question. The only
22 thing I want to clarify is, based on your last
23 statement, that all treated sewage will be going to the
24 stabilization ponds?

25 THE CHAIR: Applicant?

26 MR. MILLARD: That is not correct. The

1 treated --

2 THE CHAIR: Do you have a name?

3 MR. MILLARD: Sorry, James Millard from
4 Baffinland.

5 The -- again, it depends on the site, so going
6 through the different sites, so Mary River is -- or the
7 mine site is substantially different than the -- than
8 Milne Port. At Milne Port, we will be
9 direct-discharging our sewage. That will be the
10 preferred method, and then we will have a pond for
11 potential offspec. sewage or for other reasons, if we
12 are doing work on the pipeline and that sort of thing,
13 right? So that's the primary method of discharge from
14 Milne Port.

15 Now, for the mine site at Mary River, we would be,
16 during the winter time, discharging into an effluent
17 holding pond, and in the summertime, we would be
18 releasing that pond to the receiving environment, which
19 is Mary River. So at the mine site, it's primarily the
20 discharge, direct discharge would be to a pond and then
21 to the receiving environment, except during the summer
22 months when we would still like to maintain the option
23 of a direct discharge to Mary River.

24 THE CHAIR: Environment Canada?

25 MR. MILLARD: The -- let me just finish on
26 that -- the reason for that is we need to maximize our

1 storage capacity in that pond prior to the winter
2 season, because we have to hold an entire winter, eight
3 months of storage in there, so we want to keep that
4 pond as empty as possible during the summer.

5 As well, the sewage treatment plants that we are
6 bringing in will be treating the sewage to a very high
7 level of high standard, and it will be sort of a
8 consistent level of treatment, we'll be able to
9 consistently treat it at that high level. So we have a
10 lot of faith in the system we're proposing to bring in.
11 Thank you.

12 THE CHAIR: Environment Canada?

13 MS. WILSON: Thank you, it's Anne Wilson.

14 And Steensby it looks like will be directly via an
15 ocean outfall, so my question for all the three sites
16 then is the polishing restabilization pond primarily
17 for the startup; is that what you'll use until you can
18 get your plant operating to equilibrium?

19 MR. MILLARD: Yeah, I should have mentioned
20 Steensby, that is similar to Milne Inlet in that we
21 will be exactly doing that, using the ponds for startup
22 or for upset, primarily for upset conditions, and
23 retreating that water at some time in the future either
24 through the plant or through some other means to the
25 receiving environment.

26 THE CHAIR: Environment Canada?

1 MS. WILSON: Thank you. It's Anne Wilson.

2 With respect to any discharges that would not go
3 to land, i.e., that would go to surface waters of the
4 treated secondary containment or landfarm -- sorry, no,
5 just the secondary containment treated waste water
6 effluent, would you be willing to do a chemical
7 characterization of the unregulated parameters prior to
8 discharge?

9 THE CHAIR: Applicant?

10 MR. MILLARD: Jim Millard, Baffinland.

11 We could give consideration to that.

12 THE CHAIR: Environment Canada?

13 MS. WILSON: It's Anne Wilson.

14 Well, on that definite maybe, I'll move on to my
15 next question which has to do with marine monitoring.
16 The NIRB project certificate Term and Condition Number
17 76 requires a comprehensive environmental effects
18 monitoring program to be put into place for the marine
19 receiving environment. So that would be both at
20 Steensby and at Milne Inlet.

21 We've had extensive and really constructive
22 discussions on the freshwater monitoring program, and I
23 acknowledge the jurisdictional difficulties in bringing
24 marine into this forum but wanted to ask the Proponent,
25 in light of Environment Canada's recommendations in our
26 presentation, how they are thinking to address the

1 marine monitoring.

2 THE CHAIR: Applicant?

3 MR. CURRAN: Thank you, Mr. Chair. Oliver
4 Curran with Baffinland, and thank you for that
5 question, Anne; it's an important question, and so I'll
6 just try to summarize what our approach is here.

7 As Anne mentioned, Condition Number 76, and there
8 are other conditions that relate to the marine
9 environment, we have -- Baffinland has already formed a
10 marine environment working group, and that marine
11 environment working group had met in March, and we had
12 discussed this very topic, and we will be meeting, the
13 marine environment working group will be again meeting
14 on May 22nd, and the item of the monitoring in the
15 marine environment will be a topic on that agenda.

16 And one of our consultants working for us on this
17 topic will be coming up -- will be revising the marine
18 environment management plan to arrive at a general
19 study design on how we can incorporate the project
20 certificate conditions for monitoring the marine
21 environment, along with future hazardous alteration
22 disruption or destruction of fish habitat monitoring.
23 So we want to have kind of a comprehensive monitoring
24 approach in the marine environment both at Steensby and
25 Milne to capture that NIRB condition.

26 THE CHAIR: EC?

1 MS. WILSON: It's Anne Wilson, thank you,
2 and that's all my questions.

3 THE CHAIR: Thank you. Next we have
4 Fisheries and Oceans Canada.

5 MS. WILLISTON: Good afternoon, Mr. Chair.
6 It's Georgina Williston from Fisheries and Oceans
7 Canada. We have no questions at this time.

8 THE CHAIR: Thank you. Natural Resources
9 Canada?

10 NRCAN QUESTIONS BAFFINLAND:

11 DR. KWONG: Thank you, Mr. Chair. I am
12 John Kwong from Natural Resources Canada.

13 I've got two questions, one related to water
14 management, and then -- which is on Slide Number 60,
15 and the second one is on mine contact water, which
16 would be Slide Number 83. So I'll raise my first
17 question on Slide Number 60.

18 Okay, the last point, last bullet in this slide
19 says that the mine pit water will be trucked to waste
20 rock stockpile during operation, right? So since any
21 runoff from the stockpile would end up in the
22 sedimentation pond, okay, my question is before you
23 truck the pit water during operation to the stockpile,
24 would the water quality of that water collected be
25 measured or not, or you only plan to measure the water
26 quality at the sedimentation point?

1 THE CHAIR: Applicant?

2 MR. BEAULAC: Fernand Beaulac.

3 To answer your question, John, this is referring
4 to water collecting within the confine of the mine
5 operation, and what we're talking about here are the
6 few rain events that may occur during the winter
7 months, which will not be large volumes of water, and
8 that's why we're saying that that water would be
9 pumped -- would be trucked and discharged to the waste
10 rock pile.

11 What we would expect from this water is that it
12 would be mainly loaded with suspended solids because
13 it's strictly runoff, washing -- the pit operation, and
14 it's to allow you to continue the mining operation.

15 During the winter time, it's snow; it will be
16 trucked with either the ore or the waste rock. It's
17 not an issue.

18 DR. KWONG: Thank you for the
19 clarification, but I have a further comment on that.
20 On the one hand, you want to determine what ultimately
21 the pit -- say once you start to have a pit lake, then
22 you want to know you're using modelling to pit lake --
23 the subsequent pit lake water quality, right? But what
24 end up in the pit lake is a -- is in reality what is
25 you are correcting now, you know, those -- all the
26 surroundings, those water would end up in the pit lake.

1 So if you start monitoring the water chemistry of that
2 runoff water in there, so you already have an idea on
3 what would be the eventual pit lake water quality, so
4 this is just a suggestion. Thank you, Mr. Chair.

5 THE CHAIR: Applicant?

6 MR. BEAULAC: Fernand Beaulac, Baffinland.

7 It's a good point. We had considered this in the
8 AEMP, and we'll just incorporate it in the AEMP. It's
9 a valid point. Thank you.

10 DR. KWONG: Thank you. So could I start
11 with my second question, Mr. Chair?

12 THE CHAIR: Please, go ahead.

13 DR. KWONG: So the second question is on
14 Slide Number 83 regarding the mine contact water. So
15 you -- Slide Number 83. How about the slide showing
16 Table F-6? Okay, I'm curious, what is the rationale
17 for not having sort of the limit for ammonia and
18 nitrate? Thank you.

19 THE CHAIR: Applicant?

20 MR. BEAULAC: Fernand Beaulac with
21 Baffinland.

22 Essentially Table F-6 is Schedule 4 of the MMER,
23 and the MMER also requires you to -- requires that the
24 contact water be nonacutely toxic to fish. So ammonia
25 is really captured in that nonacutely toxic test work.

26 DR. KWONG: Mr. Chairman, may I have a

1 further comment on that reply?

2 THE CHAIR: Go ahead.

3 DR. KWONG: During the mining process, you
4 use explosive to break down the rock and then extract
5 the ore, okay? So one of the byproduct or any
6 remaining explosive not used would be refracted in the
7 ammonia or total ammonia or nitrate content. So if you
8 are concerned about what would be the effect of this
9 explosive, then it is a good idea to also set a limit
10 on the ammonia and nitrate, so that you know -- when
11 you exceed a certain limit, then you know that, oh,
12 okay, you may have to improve how the explosive are
13 made or how you apply the explosive in order to reduce
14 the water -- in order to meet the water quality limit.
15 That is a proactive action I'm suggesting. Thank you.

16 THE CHAIR: Applicant?

17 MR. BEAULAC: Fernand Beaulac. Thank you
18 for the comment, John.

19 DR. KWONG: Thank you, Mr. Chairman.
20 That's all the questions I have for now.

21 THE CHAIR: Thank you. Government of
22 Nunavut, any questions to the Applicant?

23 GN QUESTIONS BAFFINLAND:

24 MS. ERKLOO: Qujannamiik, Iksivautaaq.

25 Thank you Mr. Chair. I am Nellie Erkloo, from Economic
26 Development and Transportation, Acting Director.

1 This is concerning Baffinland's presentation on
2 water management, water quality, and waste disposal and
3 management. In reviewing the Proponent's freshwater
4 supply sewage waste water management plan, the
5 Government of Nunavut's Department of Health recommends
6 that the Proponent adds the Nunavut's Public Health
7 Act, in particular, the public water supply regulations
8 and cab sanitation regulations to the list of
9 applicable regulation standards and codes.

10 The public water supply regulations require that
11 the water supply available for human consumption must
12 be tested monthly for bacteriological examination. We
13 note that the monthly testing for bacteria in potable
14 water or bacteriological tests is not specifically
15 identified in the regulator maintenance table for
16 testing of potable water treatment system. This is
17 Table 7-1 of Section 7.1.1 at page 22 of the freshwater
18 supply, sewage, waste water management plan. The
19 absence of monthly bacteriological testing can be a
20 serious concern. However, it would seem unlikely that
21 the Proponent would not conduct this test, given the
22 other chemical tests that it has identified in the
23 plan. Perhaps the Proponent can clarify or confirm
24 that the plan also entails chemical and bacterial
25 monthly testing.

26 THE CHAIR: Applicant?

1 MR. MILLARD: James Millard, Baffinland.

2 Thank you very much for that question.

3 The document that you're referring to, I assume,
4 is the FEIS version. So just for your information,
5 that document has been updated as of March of this
6 year, 2013.

7 So to answer your question, we're in agreement
8 that we need to follow all the regulations that are out
9 there with regard to -- and guidelines that we will be
10 under, so we need to follow all these -- whatever -- if
11 there's an applicable guideline or a regulation, we
12 have made the commitment to follow that regulation. It
13 may be that we have forgot to list one or two of these
14 regulations, and we will -- can I request us the option
15 to talk with you after this, and we can compare the
16 list of regulations that I have that are -- that we
17 thought was complete, and maybe it's not complete, and
18 we'll make sure that, with the next revision, that
19 whatever we're missing will be included?

20 THE CHAIR: Government of Nunavut?

21 MS. ERKLOO: Qujannamiik, Iksivautaaq.

22 We're agreeable to this. Thank you.

23 THE CHAIR: Thank you. And we have
24 community representatives from Hall Beach, questions to
25 the Applicant?

26 HALL BEACH REPRESENTATIVES QUESTION BAFFINLAND:

1 MR. KUPPAQ: Qujannamiik. Thank you,
2 Mr. Chair. I am Timothy Kuppaq, hamlet representative
3 of Hall Beach.

4 We did have questions, but somebody did ask about
5 the fuel tank farm, that it would collect huge amounts
6 of water. I want to ask about that, but I could answer
7 on that in light of the situation, but I do have
8 another question.

9 The fuel tanks before they're placed in their
10 places, how would you test the berm of the tank farm
11 when you fill it up to see whether it was leaking or
12 not? That is my question.

13 And another -- I have another question. When
14 they're creating the railway line, they will be using
15 explosives, and explosion remnants will be left on the
16 ground, I'm sure, and that was well stated, and I
17 understood that only during spring melt would they test
18 those waters. While this melt snow is starting to sink
19 into the earth, I think you would get the best results
20 at that time. If you try and do testing while the snow
21 is frozen on the ground, you'd get not very complete
22 results. And to us, the best way to test those waters
23 would be when there's -- when spring has arrived and
24 the snow is melting and creeks are flowing, and to us,
25 that's the best solution.

26 I don't have too many questions, and so that's my

1 statement for now, Mr. Chair. Thank you.

2 THE CHAIR: Applicant?

3 MR. MILLARD: Yes, James Millard,
4 Baffinland. Thank you very much for the question.

5 With regard to the -- with regard to the
6 construction of the fuel berms, let me just detail a
7 little bit as to how that is done.

8 First of all, we find a prospective location for
9 the fuel tanks, and we do geotechnical drilling to
10 ensure that the ground at that location is stable and
11 free of ice lenses and other types of instabilities,
12 similar to the section on permafrost that I had
13 presented earlier.

14 So once we determine an area is acceptable
15 geotechnically and from a permafrost point of view, we
16 construct the base, and the base is made up of -- is
17 developed based on an engineered design. So these are
18 engineers who construct these berms right across the
19 world, and there's a base of gravel and aggregate
20 material of a certain size and of a certain texture,
21 and it's laid out in a shape that's designed and
22 planned for.

23 On top of that, we put an impermeable plastic
24 liner that is, again, welded together, and there's all
25 kinds of quality assurance and quality control that's
26 required in that process.

1 On top of the impermeable plastic liner, we then
2 put -- well, we have below and above that liner, we
3 have a geotextile membrane which protects the liner
4 from punctures, from granular material or other things
5 from below and above, and above that, we have another
6 layer of gravel. And the tank base is also very
7 carefully engineered so that, for one thing, it doesn't
8 move, it doesn't tilt, and for another thing, there's
9 sufficient insulation under that tank so that it will
10 not melt out any residual water or ice that's in the
11 soil.

12 Then further to that, we submit design drawings to
13 the Nunavut Water Board and to, if it's not Inuit-owned
14 land, to QIA prior to construction, so everyone gets a
15 chance to review our designs. We then construct the
16 facility, and then we construct as-built drawings to
17 demonstrate -- that are stamped by an engineer that is
18 registered in Nunavut. So that's how we get to the
19 construction of the tank.

20 Subsequent to that, when we have water that's
21 filled in -- and I think the question there is how do
22 we know it's not going to leak. Well, on an annual
23 basis, we expect that there's going to be a requirement
24 in the water licence for a geotechnical engineer to
25 come and expect all our berms to ensure that they still
26 hold water, and there's ways that they -- they have

1 field techniques that they do to ensure that that liner
2 is not punctured, and it's not leaking.

3 So there's a lot of controls in place to ensure
4 that the water does not discharge to the receiving
5 environment in an uncontrolled fashion and cause
6 adverse effects.

7 So I'm not sure if -- does that answer your
8 question? I guess so. Thank you.

9 THE CHAIR: Thank you. Did that answer
10 your question?

11 MR. KUPPAQ: Yes.

12 THE CHAIR: Hall Beach? Hall Beach, any
13 questions? The floor is yours. Qujannamiik. Arctic
14 Bay residents, the floor is yours for any questions.

15 ARCTIC BAY REPRESENTATIVES QUESTION BAFFINLAND:

16 MR. MUCKPA: Andrew Muckpa, Arctic Bay, HTO
17 member. My question: Have you set aside any benefits
18 for Inuit like sleds, snow machines, four-wheelers that
19 you would donate to Inuit? That's my question.

20 THE CHAIR: Applicant?

21 MR. MADSEN: It's Erik Madsen with
22 Baffinland.

23 Can we -- could you ask that question again just
24 to clarify what you're talking about? I don't know if
25 it's related to water usage and the water licence,
26 but ...

1 MR. MUCKPA: Is there an agreement, have
2 Inuit said that they want support, regular Inuit
3 community members, not employed people, if this has
4 been brought up is my question.

5 MR. MADSEN: It's Erik Madsen with
6 Baffinland.

7 I still don't really understand the question, but
8 I will say that, as part of this project, you know, we
9 are negotiating an Inuit Impact Benefit Agreement that
10 talks about benefits in there to the various North
11 Baffin communities, and there's mechanisms in that IIBA
12 that's being negotiated that talks about various ways
13 of compensation in areas like that with communities,
14 individual communities, and the Qikiqtani Inuit
15 Association, so I think that would probably be the best
16 way to look at that, that option, what he's talking
17 about.

18 MR. MUCKPA: Thank you. That is all.

19 THE CHAIR: Igloolik?

20 MR. NAQITARVIK: Olayuk Naqitarvik from Arctic
21 Bay, hamlet representative.

22 Perhaps I will ask a question that may not pertain
23 to this even. Explosives that shatter -- for
24 shattering rocks ore, this material is safe to animals,
25 it's not dangerous? The smoke from the explosion is
26 safe? I am remember when Nanisivik was operating after

1 an explosion, the sky around the area would change, and
2 there was some smoke connected with it. Back then, I
3 wasn't sure if that smoke was hazardous or dangerous.
4 Have studies been done today regarding the smoke from
5 the explosives? The explosive is safe, of course?

6 THE CHAIR: Applicant?

7 MR. BEAULAC: Fernand Beaulac, Baffinland.

8 There's two parts to the questions, and I'll try to
9 answer them as best as I can.

10 The first is related to the cloud of dust as
11 explosives is used. Of course, you're shattering rocks
12 with explosives, so there is always small particulates
13 that is formed and that will settle fairly rapidly with
14 time, so you always have a cloud burst with the
15 explosion, that's inevitable, but the way you try to
16 minimize this is by proper use of applying
17 best-management practices for the use of your
18 explosives so that you have a clean blast, and you try
19 to minimize the number of blasts, of course, because
20 there's money involved with that as well.

21 The second part of the question was related to
22 residual explosives, I believe, is it safe for animals.
23 We believe that ammonium nitrate is an attractant for
24 animal, and the ammonium nitrate that is used for the
25 manufacture of explosives will be stored securely in a
26 sea can container with the appropriate protection.

1 Now, when the explosion -- the explosive mixture
2 is used at the site, it will be detonated, and we'll
3 apply best-management practices to minimize spills,
4 ensure, again, that you have proper loading of your
5 holes, proper use of the explosives, so we don't
6 foresee a problem for animals related to the use of
7 explosives.

8 MR. AWA: Perhaps -- Solomon Awa here --
9 perhaps I can interpret the English term for his
10 question. May I please, Mr. Chairman?

11 I will ask this question in English, so he'll get
12 a good answer, and so I want to ask: I think you -- I
13 think the question is that we have ammonium nitrate
14 that you're going to use that -- that there are a
15 number of different types of explosives. I think that
16 his question is that, even though, there are going to
17 be some leftovers around the ground after the
18 explosive. The question is that if that sort of
19 leftover start leaking around the area of land or the
20 lakes, of course, down the stream, is it dangerous to
21 the wildlife species of that particle that's left
22 behind after the explosion? Thank you, Mr. Chair.

23 THE CHAIR: Applicant?

24 MR. BEAULAC: Fernand Beaulac with
25 Baffinland.

26 Okay, I think here it's important to highlight

1 that ammonium nitrate, which is a big component of the
2 explosive used, is not -- essentially it's a nitrogen
3 compound, and it's an essential component for plants
4 and life forms. It's required by plants and animals to
5 grow.

6 The concern is if you have excessive amount of
7 ammonium nitrate entrained into streams, that can cause
8 harmful effects on the receiving waters, and to prevent
9 that, what we do is apply best-management practices to
10 minimize spillage, control runoff from areas where
11 explosives are used, and we monitor the quality of the
12 runoff prior to discharge of the environment. That's
13 how we tackle -- that's how we deal with -- we prevent
14 having excessive runoff of ammonia into the surface
15 water.

16 MR. CURRAN: It's Oliver Curran with
17 Baffinland. I will just add to that -- add to
18 Fernand's comment. There was reference made to a
19 lead-zinc mine in Nanisivik and blasting, and I just
20 wanted to add, he raised a good point in that the ore
21 being blasted at Mary River will be iron ore versus the
22 ore blasted at Nanisivik was lead-zinc.

23 From a toxicological perspective and the
24 interaction of metals in the environment, in our final
25 environmental impact statement, we did -- did do a
26 bioavailability assessment comparing various metals in

1 the environment, and I just want to assure that iron
2 is -- the Mary River iron is an iron oxide. It's
3 essentially inert in the environment, meaning that it
4 doesn't react with plants and animals the same way as
5 lead or zinc or other metals could interact. So I
6 just -- I think it's a good point he raises, and I just
7 wanted to make that clarification.

8 THE CHAIR: Thank you. Further questions
9 from Arctic Bay?

10 MR. NAQITARVIK: Perhaps I will move on to
11 another question. Some of the plans, especially for
12 the railroad, it seems to be an incline or a steep
13 foundation for the railway and just wondering if there
14 would be any monitoring on that or would you give me a
15 little bit more explanations as to how that process
16 would be?

17 MR. CURRAN: Oliver Curran with Baffinland.

18 If I understand the question correctly, it's to do
19 with the slope of the rail embankment in relation to
20 the ability for wildlife such as caribou to be able to
21 cross the railway embankment, and that's an important
22 question that's been raised throughout the
23 environmental assessment process. And I guess just to
24 summarize the discussions that have been had over this
25 is that, generally, the slope of the railway embankment
26 is such that wildlife would be able to easily cross.

1 We did, in the environmental assessment, identify
2 areas that could be too steep for wildlife to cross,
3 and those areas that we identified, we have committed
4 to providing less of a -- or a better gradient so that
5 wildlife would be able to cross. So I hope that
6 answers the question.

7 THE CHAIR: Thank you. Thank you for
8 answering our question. Any other Arctic Bay people
9 have statements? I think that's it for Arctic Bay.

10 We'll move on to Igloolik representatives, if they
11 have questions.

12 IGLOOLIK REPRESENTATIVES QUESTION BAFFINLAND:

13 MR. KADLUTSIK: Thank you, Mr. Chair. I am
14 Josiah Kadlutsiak. I come from -- I represent all the
15 people of Igloolik. I don't remember all the details
16 in your report, but I'll only ask a few questions.

17 You discussed sewage lagoons and waste land sites
18 or treatment sites. It was probably just because how
19 long those operations would be in place for, but where
20 fish could be offset or we don't want the lakes to be
21 polluted by the pollution from these, and would you
22 have liners in your sewage tanks, or would you treat
23 the water before you discharge to ponds?

24 MR. MILLARD: Jim Millard, Baffinland.
25 Thank you for the question.

26 All the sewage treatment ponds will be lined, and

1 they will be engineered to ensure that there is no
2 leakage. I think that was one question, and -- yes, so
3 the primary means to treat our sewage is through a
4 sewage treatment plant. We will have -- so the sewage
5 coming out of the sewage treatment plant will typically
6 be safe for discharge to the environment. And when I
7 say "safe", it means that it will meet the water
8 licence effluent criteria that will be established as
9 part of this licence.

10 On occasion, if the sewage is offspec. or if, for
11 instance, at the mine site, we will not be discharging
12 all year to Mary River. During the winter, we'll be
13 storing in ponds. Those ponds, again, will be
14 engineered, constructed, and definitely lined so that
15 there will be zero leakage. Thank you.

16 MS. QUASSA: Qujannamiik. First of all,
17 let me say that we arrived yesterday from Igloolik,
18 four of us -- five of us, and we were even informed in
19 Igloolik about the places we would be billeted at, and
20 when we arrived we didn't have places to stay as we
21 hadn't been planned for ability, we thought we hadn't
22 been -- the plan for billeting, we though we'd be
23 taken -- better taken care of by those who had invited
24 us here. I did not appreciate this, and we have an
25 Elder with us, and we waited a long time for people,
26 and at your next hearing conference, we'd like to see

1 billets, hotels pre-booked in advance for me and my
2 crew. Thank you.

3 What I had wanted to ask regarding blasting, I
4 want to ask this regarding blasting, small lakes,
5 ponds, there will be many small ponds close to where
6 they want to do blasting, and the small ponds will
7 collect debris from the blast. Will the water still be
8 potable? I love drinking fresh, clean water. And even
9 though we get trucked water, I don't like that as much
10 as our original water for people and animals, for
11 moving terrestrial and marine life. The water that has
12 been affected by the blasting, will it be safe for us
13 all? That is my question.

14 THE CHAIR: Applicant?

15 MR. CURRAN: Thank you, Mr. Chair. It's
16 Oliver Curran with Baffinland. Thank you, Elisapee,
17 for that question.

18 We'd just -- we'd like to assure you that in the
19 environmental impact assessment, the important point
20 that you bring up was assessed. And I think the main
21 point to make is that the blasting activities, where
22 they occur, would be very temporary and short-term in
23 nature, so we're not talking about an area that would
24 be continually exposed to those blasting activities.
25 So in short answer to your question, we do believe that
26 the water -- once the blasting activities have ceased,

1 and we've moved on to other areas, we believe that the
2 water quality would be safe, and that's what we have
3 assessed.

4 Now, in relation to the mine site, that's where we
5 will be blasting -- we will be blasting there on a
6 continual basis for the life of the project to extract
7 the ore, and in that situation, this is where our
8 monitoring, the aquatic effects monitoring program
9 would -- where we would actually be collecting
10 information in the Mary River and in streams around the
11 mine to understand, first of all, what is the quality
12 of the water and also looking at fish and also looking
13 at -- on the benthic community as well, the insects and
14 the water, to ensure that we're not having any affect
15 or making any changes to the water quality or to the
16 fish or benthics to the extent where we're having an
17 effect.

18 And if it was shown that it looked as though we
19 were having an effect, then the company has committed
20 and we would have to take action to reduce -- let's say
21 if it's ammonia, we would have to change the way we
22 operate to ensure that the ammonia levels are reduced
23 to ensure that the water quality and the animal life in
24 the rivers and lakes remains safe and healthy.

25 THE CHAIR: Pardon me for interjecting,
26 but our translation equipment and interpretation

1 equipment are not functioning again, so bear with us
2 until we resolve our technical issues.

3 (ADJOURNMENT)

4 THE CHAIR: Could I have your attention
5 for a minute. I have been advised that our audio
6 system is working again, but we will be adjourning
7 until 7. Break for supper, and be back here for the
8 public session tonight at 7, and we will defer any
9 other questions until tomorrow morning sometime.

10 (AFTERNOON ADJOURNMENT AT 4:49 PM)

11 (PROCEEDINGS RECOMMENCED AT 7:11 PM)

12 THE CHAIR: Welcome back, everyone. To
13 carry on where we left off at 5:00, we will finish
14 questioning by the community members from Igloolik to
15 the Applicant and also Clyde River to the Applicant,
16 and after that is done, we will be going to the
17 community session. So questions from Igloolikmiut,
18 this is your chance to ask questions to the Applicant.

19 MR. KADLUTSKIYAK: I had wanted to ask again, the
20 plans for Mary River, they sound good, and we want them
21 to go ahead. My question is the plans we made, we do
22 want to see them go ahead. When the Baffin project is
23 up and running, will it be monitored, and will Inuit be
24 sent to Mary River to see if the monitoring programs
25 are being followed? As we do want to see all the
26 people end up go up there to see whether the animals or

1 whatever is not being polluted because we do want our
2 animals and fish to be taken well -- good care of.
3 Baffin Island has many fine fish, and that's it for
4 now.

5 THE CHAIR: Applicant?

6 MR. CURRAN: Thank you, Mr. Chair, and
7 thank you for that question.

8 So, you know, the short answer, you know, will
9 there be monitoring on site, the answer to that is
10 absolutely yes. So this adequate effects monitoring
11 program we've been speaking about will be targeting the
12 freshwater environment, and under that program, there
13 will be site-specific information collected on the
14 surface water, the sediments, the fish, the plant life,
15 and the benthics to understand if there are any
16 indication that there's a potential effect, and if it's
17 seen that there are indications that there is a
18 potential effect, then that's where adaptive management
19 has to take effect, and we're obligated to make changes
20 to our discharges or our operations to ensure that's --
21 that stops.

22 With respect to the involvement of Inuit in those
23 monitoring programs, absolutely, they'll -- in the
24 aquatic effects monitoring program, we have built into
25 that the involvement of traditional knowledge and the
26 involvement of Inuit in that monitoring. And in

1 addition to that, under the Inuit Impacts Benefit
2 Agreement, there's also provisions to have Inuit
3 monitors at the site to participate in our
4 environmental monitoring at site.

5 And lastly, the marine environment working group
6 and the terrestrial environment working group is a
7 forum that we have under the project certificate to
8 ensure that we have all interested parties, including
9 the Qikiqtani Inuit Association, involved in sharing
10 ideas and inputting into the plan.

11 And then also under the Inuit Impact Benefits
12 Agreement, there's also an annual forum to review all
13 of the data that's collected through this monitoring
14 program and that involves input from all of the
15 committee members.

16 And lastly, I'll just point out, and Jim would be
17 able to speak to us, and I'm sure he will a bit later
18 in the community presentation or in answering questions
19 in the community forum is that currently and for the
20 last many years, we've had environmental techs at site
21 at Mary River participating in environmental
22 monitoring, and those environmental techs are from the
23 Arctic College Environmental Tech program at Arctic
24 College in Pond Inlet. So we do have -- we have
25 involved people for the last several years and will
26 continue this year to involve people from that program

1 from Pond Inlet. Thank you.

2 MS. QUASSA: Qujannamiik, Iksivautaaq.

3 This is Elisapee Quassa. If my question was adequately
4 accurate, I'm going to repeat my question. I think it
5 was Erik who mentioned this. In the first statement
6 that I had before we came here is I want the matters --
7 and we didn't have adequate accommodation, and there
8 was hardly any place to accommodate, and I would want
9 to get answers for that, and I have -- still have other
10 questions. They will -- my other question, they will
11 be using a lot of water, about water, will they be
12 using at lake, would they be emptying lakes, or would
13 they be trying to keep up with water for what they use?
14 That is my question. Thank you.

15 THE CHAIR: Qujannamiik. Applicant?

16 MR. MADSEN: It's Erik Madsen with
17 Baffinland.

18 So I think the first question was regarding
19 accommodation. Is that accommodation for this meeting,
20 for the representatives that came to this meeting?
21 This meeting was organized by the Nunavut Water Board;
22 it wasn't organized by Baffinland, so I think the best
23 person to answer that question would be Damien Cote
24 with the Nunavut Water Board.

25 THE CHAIR: Damien?

26 MR. COTE: Thank you, Mr. Chairman.

1 We -- the question was raised again, we did speak
2 individually about this. Apologize for what unfolded.
3 It was our intention to accommodate everyone to the
4 best that we could. It's become evident since
5 yesterday that two pieces of information did not
6 trickle down the way we had anticipated they would
7 trickle down. We welcomed community representatives
8 from four communities. For some reason, information
9 trickled down differently in different communities. We
10 dealt with two individuals from Igloolik by phone and
11 e-mail repeatedly for the last two weeks. It's become
12 apparent that some information may not have trickled
13 down, which may have resulted in what we experienced.

14 So again, we apologize. It was never intentioned
15 for you not to be well accommodated. We've taken every
16 effort we could to try to make you feel welcomed, but
17 it's apparent that some information did not trickle
18 down the way we thought it would. So we're hoping that
19 you're comfortable now, and if not, please let us know,
20 and we'll do our utmost to make sure that you're well
21 taken care of during your stay here. Thank you.

22 MR. IVALU: Yes, thank you, Mr. Chairman.
23 Thank you on behalf of the community of Igloolik. My
24 name is Peter Ivalu. I'm representing the hamlet or
25 the municipality. I have several questions I'd like to
26 ask the Proponent pertaining to their presentation

1 earlier, if I may, Mr. Chair.

2 THE CHAIR: Go ahead.

3 MR. IVALU: Thank you. My first question
4 is in regards to the Steensby Inlet. Okay, in your
5 presentation, you made it clear that the dredged
6 material will be deposited somewhere. Can you
7 elaborate on where the dredged material will be placed
8 or the final placement of the dredged material from
9 Steensby Inlet? Thank you.

10 THE CHAIR: Applicant?

11 MR. CURRAN: Thank you, Mr. Chair, thank
12 you, Peter, for that question.

13 So just to add a little bit of context to that,
14 firstly, disposal at sea right now by the company is
15 not being pursued. If we did pursue it, we would have
16 to go through Environment Canada and get the applicable
17 permits.

18 And disposal at sea, just to let everyone know, I
19 mean it's a very commonly practiced thing across
20 Canada, so it's not unusual to this project. It's
21 common to many projects.

22 But specific to Steensby Inlet if disposal at sea
23 was required, what we're talking about is at the island
24 at Steensby Port, there's a shallow area or a knoll of
25 rock, and for the ships to come in, there's deep water
26 around but there's just one outcrop, and so for the

1 ships to be able to come in, you need that adequate
2 depth. So what they would do is it's called
3 side-casting, where they level off that outcrop, and
4 the rock or sediment would be pushed to the side to get
5 adequate depth. So we're not introducing any new
6 material to Steensby Inlet. It's naturally occurring
7 material that's there, but you just have to get
8 adequate depth.

9 Now, in terms of the water licence, this water
10 licence hearing, what we had presented -- or what we
11 had presented in the final environmental impact
12 statement was a disposal at land, on land. So instead
13 of disposing of that rock material at sea, we would
14 take that material out and dispose of it on land, and
15 so that was assessed in the final environmental impact
16 statement. But if that option was pursued, we would
17 then have to seek a modification under this Type "A"
18 water licence.

19 MR. IVALU: Thank you, Oliver, for that
20 reply. Please keep us informed whether you decide to
21 deposit it at sea or on land.

22 My second question, still regarding Steensby
23 Inlet, the discharge of sewage and oily water and
24 runoff from the ore stockpile, I'm wondering if -- will
25 that oily water or runoff be landfarmed to ensure that
26 contaminants are not being released to the environment?

1 Thank you.

2 MR. MILLARD: Jim Millard, Baffinland.

3 So that was my section of the presentation. I've
4 been at that site for the last four years, so I'm quite
5 familiar with how we deal with these things. As far as
6 the oily water and the sewage are concerned, we're
7 going to have treatment plants there are as good or
8 better than we have at site right now, and these
9 treatment plants will treat the contaminated oily water
10 and the sewage to a standard that is very acceptable
11 and will meet the proposed water licence criteria,
12 water quality criteria. So there's no need to landfarm
13 or to do anything like that.

14 One thing we do have built into our sewage
15 treatment system are ponds that we construct that are
16 lined and impermeable; they do not leak. In the event
17 that we have offspec. water, that is water that doesn't
18 meet those requirements, we can put it there, and then
19 retreat that water.

20 We also have sample -- we sample the water on a
21 very regular basis on site and also send off samples to
22 the lab, but we have techniques on site where we can
23 sample the water and get results back very quickly so
24 we know what the water has in it, and we know if it's
25 free of contaminants, but we do send stuff out
26 externally to external laboratories to give us, you

1 know, a very, very high quality analysis, so we
2 confirm -- to confirm our site sampling. So that's the
3 story as to how we deal with it, so ...

4 MR. IVALU: Thank you, sir, for that
5 answer.

6 My third question is in regards to the surface
7 runoff management, which I believe was on Slide 61.
8 Okay, you talked about sediment ponds. Once operations
9 have ceased, what will happen to those sediment ponds?
10 Thank you.

11 THE CHAIR: Applicant?

12 MR. MILLARD: It's Jim Millard again with
13 Baffinland. So if I understand your question, it's --
14 when we're finished with the site, and we have sediment
15 ponds with sediment inside the pond, what do we do with
16 that material. The best place for that material is on
17 the waste rock pile, so we would put it onto the waste
18 rock pile, and that would be the permanent storage
19 location for that material. And we predict that that
20 material will be nontoxic because all it is is sediment
21 from local materials, so ...

22 MR. IVALU: Okay, thank you, sir.

23 MR. MILLARD: You're welcome.

24 MR. IVALU: Further to that, regarding ore
25 stockpiles, and in your presentations, Baffinland seems
26 to be pretty confident that you won't be releasing any

1 contaminants or toxins or what have you, that it will
2 be pretty much similar to the background, but in terms
3 of the ore stockpiles, how can you be so confident that
4 there won't be any oxidation occurring, and for our
5 benefit, us laypeople, can you elaborate on how long --
6 it takes for iron to oxidize? Thank you.

7 THE CHAIR: Applicant?

8 MR. MILLARD: Jim Millard here again with
9 Baffinland.

10 I guess to start off, you must understand that the
11 ore that we have is an oxide ore, and so if an oxide
12 ore oxidizes, especially iron, it doesn't produce a
13 toxin or a poison.

14 What people are concerned about with regard to ore
15 bodies and acid rock drainage and metal release is if
16 you have a significant proportion of sulphides, so that
17 would be iron sulphide, better than known as pyrite or
18 fool's gold, or if you have puritite or if you have
19 petlandite, which is a nickel sulphide, if you have --
20 there's numerous types of sulphides, if you have that,
21 if we had a true metals mine where we were -- a base
22 metals mine, that would be everything -- most of the
23 metals would be in the form of a sulphide ore. So it's
24 a reaction -- we don't have that. So we have a very
25 low percentage of pyrite -- of sulphide mineralization
26 in our ore. It's at most very locally a percent or 2,

1 and I'm talking over 6-inch width in a drill hole.
2 Most of the time, it's way -- it's not detectable in
3 most locations, and we may have areas where we have
4 .2 percent, right? So way less than a percent, five
5 times less than 1 percent.

6 So that is -- the sulphide component mixed with
7 water and oxygen produces sulphuric acid, and that is
8 the reaction known as acid-rock drainage. And when you
9 produce an acid, you release acidity, and that acidity
10 lowers the -- what's called the pH and releases metals.
11 As metals become soluble, like sugar in water, if you
12 have an acid solution, it will start to dissolve the
13 metals, so that's the risk, right? We have very little
14 of that sulphide mineralization on site. So that's the
15 one aspect. So even in our rock waste pile, we don't
16 think we're going to have an issue there.

17 The -- as far as the ore stockpiles and the
18 crusher stockpile and the run of ore, the different
19 stockpiles we have there, the reason we're so
20 confident, while it's that, we very little sulphide in
21 our ore, but also the ore doesn't stay there very long,
22 and this reaction takes time. So we'll be mining from
23 the top of Deposit -- from Deposit No. 1, bringing it
24 down, stockpile it there for a period of -- I'm not
25 sure what it is, a few months -- four months, and that
26 four months isn't enough time for any type of reaction

1 to occur. So that would be the best answer I can give.

2 MR. IVALU: Okay, thank you.

3 Lastly, still pertaining to waste rock management.

4 Okay, those potentially acid-generating rock will be
5 capped with, I believe, gravel or something. Where
6 would that gravel or borrow source come from? Thank
7 you.

8 MR. BEAULAC: Fernand Beaulac with
9 Baffinland.

10 The portion of rock that contains sulphide, which
11 Jim described, that potentially -- that has the
12 potential to generate acid conditions, and, like we
13 said, that type of rock will be contained within a
14 certain location within the ore stockpile, and it will
15 be surrounded by the waste rock stockpile, it will be
16 surrounded by other waste rock that is
17 nonacid-generating. So all the material required to
18 encapsulate this potentially acid-generating rock will
19 be covered and surrounded by other waste rock that
20 doesn't have those acid-generating properties.

21 MR. IVALU: Okay, thank you, Mr. Chairman.
22 So -- Peter Ivalu, I haven't been saying my name -- so
23 you'll be able to determine -- you must have a grading
24 system that you'll determine which is -- has the most
25 acidity or whatever? Thank you.

26 MR. MILLARD: So as we're mining -- Jim

1 Millard from Baffinland -- as we start to mine, it
2 happens in a gradual, planned way. So we have -- we
3 mine from benches, and when we have -- like benches are
4 just flat-lying areas on the ore deposit. We bring
5 drills in, and we drill off the -- we drill off
6 patterns that we then subsequently fill with explosives
7 and blast that rock, and then the ore we ship down to
8 the ore stockpile, the waste rock goes to the waste
9 rock pile.

10 So as part of our waste -- we have something
11 called a waste rock management plan. That waste rock
12 management plan will be updated as a condition of our
13 licence. Let's say, we don't know what the term will
14 be, but we'll say 90 days before we start mining, so we
15 will -- in that plan, we will have what we call an
16 operational testing -- testing program, and what that
17 will involve is either collecting samples of the waste
18 rock after we've blasted or collecting the drill
19 cuttings, so when you advance a drill, the cuttings
20 come up, and it's an excellent opportunity to sample.
21 And we will be sending that material, either testing it
22 on site or sending it away for select analysis of
23 certain parameters that are indicative of potential --
24 of potentially acid-generating rock.

25 So we get a very quick turnaround; we'll know if
26 that rock is acid-generating. If it's acid generating,

1 then it will go to a certain -- and we don't know what
2 those limits are yet. We're going to define that in
3 our management plan, you know, whether the limit
4 happens to be .5 percent sulphide or 1 percent
5 sulphide, we don't -- we haven't established those yet,
6 so it will be established. But whatever the limit is,
7 there will be a plan, if the material is potentially
8 acid-generating, based on the sulphide concentration or
9 other parameters, it will be placed at a specific
10 location in the waste rock pile, as my colleague here,
11 Fernand, has mentioned, and it will be encapsulated
12 with other rock.

13 And also what needs to be mentioned as well is that
14 we'll be using permafrost here to freeze that rock into
15 place as well. So it gets encapsulated. The
16 permafrost gradually moves up through the ground,
17 bottom of the ground -- bottom of the pile, moves into
18 that and starts to freeze that material in place, so
19 we'll be using permafrost to our advantage to
20 immobilize that material.

21 MR. IVALU: Thank you. That's all the
22 questions I have.

23 THE CHAIR: Thank you. Anybody else?

24 MR. TAQQAUGAQ: My name is Curtis Taqqaugaq.
25 I'm the youth representative of Igloolik.

26 My question will be about the water use in Item 9,

1 and it's about the freshwater that you will be using
2 during construction and operation, and it's about the
3 chart that you give in Table E-1, and that is about
4 permit limit cubic metres per year. I added all the
5 numbers, and it was on the construction phase that
6 you'll be using the amount in, and on the operation
7 phase, it's a smaller amount than the construction
8 phase, but I don't see a chart about how much water you
9 will be using and where you will be using it at. Is
10 there a chart that you can give on the operation phase?

11 THE CHAIR: Applicant?

12 MR. CURRAN: It's Oliver Curran with
13 Baffinland.

14 Yeah, it's a good question, and so maybe on the
15 break, we can -- the Type "A" water licence application
16 are those three binders on our -- it's a big document,
17 so we can go through there and show you some of the
18 tables, if that's okay?

19 MR. TAQQAUGAQ: Curtis Taqqaugaq from
20 Igloolik.

21 Yeah, that would be okay, thank you.

22 THE CHAIR: Thank you. Anybody else from
23 Igloolik?

24 MS. QUASSA: The question I had wasn't
25 answered regarding lakes, the use of lakes where they
26 are drilling and that they will be using by the camps,

1 and they will be used for many years. They will be
2 using those lakes for many years, and they're small
3 lakes. Thinking that I had a question. For many years
4 they'll be using those lakes, probably 150 years.

5 That's going to be how many years? They may be -- the
6 lakes may dry up, looking at the future. There maybe
7 water shortage in the future, and some of it will not
8 be usable. Are these part of the plan by your company?

9 Thank you.

10 MR. CURRAN: Thank you, Mr. Chair. It's
11 Oliver Curran with Baffinland. Thanks, Elisapee, for
12 that question.

13 It's a good one in that, you know, there's going
14 to be, during construction, there will be a lot of
15 people at camp during operations. It's a 21-year
16 operation. The benefit of this operation is we don't
17 have any mills or processing plants compared to other
18 mining operations, and that's usually where you use the
19 most water.

20 But to answer your question specifically about the
21 water we're using, we've -- during the environmental
22 assessment phase of the project, we assessed all the
23 water we'll be using from each of the -- of each of the
24 lakes to ensure that we're not taking more water, too
25 much water that would affect the level of the lake or
26 the ecology of the lake. So our water use at the

1 different -- from the different lakes is not going to
2 affect the level of the lake. So there's natural
3 inputs into the lake, and there's also outflow from the
4 lake, and our water take from those lakes is extremely
5 minimal, and it will not draw down the level of the
6 lake.

7 MS. QUASSA: Qujannamiik. Thank you. We
8 can visualize that we would have to be aware of what's
9 happening having to live in the land, the actual land.

10 THE CHAIR: Anybody else from Igloolik?
11 Qujannamiik. Clyde River?

12 CLYDE RIVER REPRESENTATIVES QUESTION BAFFINLAND:

13 MR. NATANINE: Jerry Natanine, representing
14 the hamlet. Thank you very much Baffinland and Nunavut
15 Water Board. It seems like your meeting is very well
16 set up.

17 I will ask two questions. I will ask them in
18 English because I am talking to southerners. It was
19 stated on that Slide 59, I wanted to ask what that
20 chemical can come from the runoff, from iron ore? But
21 the answer you gave to Igloolik's question gave me --
22 satisfied my answers (sic).

23 And then Slide 95, waste rock management, it said
24 there could be potentially acid rock. How much
25 potential is there for acid be coming out. You already
26 answered that one about 5 percent on the last question.

1 And my final question is on geochemistry. Someone
2 was saying that it's based on worst-case scenario. How
3 far is that scenario, how far away from the work you
4 want to do? The worst-case scenario, how far is that?
5 Is it -- the tipping point really close or -- and
6 that's it. Thank you.

7 THE CHAIR: Applicant?

8 MR. BEAULAC: Fernand Beaulac, Baffinland.

9 Thank you for the question.

10 Related to the reason we say it's a worst-case
11 scenario is that, in the modelling, we have
12 overestimated the amount of potentially acid-generating
13 rock. For example, what we presented in the final
14 impact assessment, we assumed 19 percent of the overall
15 waste rock would be potentially acid-generating, and as
16 we progressed with the waste rock characterization
17 program, that number dropped down to around 11 percent.
18 It's almost half of what we had originally estimated.
19 That's one part.

20 Another thing that we have to keep in mind is that
21 all the test work that we're doing on kinetic testing
22 is done at higher temperatures. It's done at
23 temperatures of 24 degrees, which is a long ways from
24 the conditions that you will have at the site. So we
25 are using exaggerated conditions to try to predict what
26 the runoff water quality would be when the water comes

1 in contact with this potentially acid-generating rock.

2 Another aspect that makes us think that we are
3 using worst-case scenario is also the size of the
4 material that we test. In the waste rock pile, you'll
5 have boulders, massive-sized rock, and what we are
6 testing is really material that has been crushed finer
7 so that we get a better idea of the release rate again.

8 So when you combine all these factors, none of
9 them are really close to what you will experience on
10 the site. That's why we consider those on the worst
11 side of things.

12 MR. NATANINE: Yes, that answers my question.

13 Jerry Natanine, hamlet.

14 And then since you got those numbers from
15 worst-case scenarios, do you have estimates of the
16 actual numbers? Like you're saying it's too much.
17 What about in the actual temperatures of not
18 24 degrees, of 10 degrees, or what would be the number?
19 Thank you.

20 MR. BEAULAC: Fernand Beaulac, Baffinland.

21 Okay, the whole purpose of the aquatic effects
22 monitoring program is precisely to track this and be
23 able to answer those questions. That's the best answer
24 I can give you on that.

25 MR. MILLARD: Jim Millard.

26 We will be doing some additional work. We're

1 looking at installing small weather stations, for
2 instance, at the location where we're going to be
3 depositing the waste rock so we have a good idea of
4 what the actual temperatures are at those locations
5 under -- you know, where we're -- instead of using the
6 lab data at 25 degrees, we will be able to understand
7 what the temperature is where the material is being
8 deposited.

9 And the other thing that we're thinking about
10 doing is to these humidity cells, and what they are are
11 just like tubes, tubes of pipes filled with this
12 crushed rock material that we crush and then you
13 percolate water through, you collect samples every week
14 and analyze that water to see what's coming out of it.
15 What we can do is, it's more expensive, but we can set
16 up tests in colder, like in a big refrigerator in the
17 lab to simulate real, so that we're thinking about
18 doing as well.

19 Now, my colleague just reminded me that what we're
20 doing -- what we're planning to start this year is
21 to -- if we can get -- this is going to require the
22 permission of the Water Board through a term -- through
23 a condition in the water licence, to develop some test
24 piles, where we will go out and we will blast some
25 selected rock material, create big piles on site, where
26 we will actually simulate a larger waste rock pile, but

1 we'll maybe only use a thousand tonnes or 500 tonnes of
2 material or 2,000 tonnes, don't know what the size will
3 be, and then we will instrument that test pile, and we
4 will line that area and actually collect the runoff
5 that comes from that.

6 So that's another thing we have planned, so
7 that -- you see, you always have to plan for what's a
8 reasonably worst-case scenario, and that's what we do
9 until such time where you have the information, where
10 you're certain that, okay, you can -- you can become
11 less conservative, less worst-case in your approach.

12 MR. NATANINE: Thank you, Mr. Speaker, that's
13 it.

14 THE CHAIR: Thank you.

15 MR. ANGUTIKJUAK: I too am from Clyde River.

16 Ilkoo Angutikjuak is my name. I represent the
17 Elders -- I am the chair of the Elders, and I represent
18 them.

19 I have not attended on a Nunavut Water Board
20 hearing. This is the first time I've experienced this,
21 and perhaps my question may be -- in our community area
22 around Pond Inlet, Igloolik usually has more, bigger
23 wildlife than my community, and if our animals are
24 destroyed or polluted, and there are no more animals,
25 and once the animals start hearing the vehicles going
26 back and forth, they usually move off to other areas.

1 Are there any benefits for our loss of food, or would
2 we require more assistance if our animals were to flee
3 the area as we only feed on animals? We are not like
4 southerners; we don't have -- herd animals that we can
5 keep. If anybody can answer that, I do want an answer
6 to that question.

7 THE CHAIR: Applicant?

8 MR. CURRAN: Thank you, Mr. Chair. It's
9 Oliver Curran with Baffinland. Thanks for that
10 question.

11 I guess in summary, the best answer to that
12 question is under the Inuit Impacts Benefit Agreement
13 that we're negotiating with the Qikiqtani Inuit
14 Association, there would be compensation under that
15 agreement if such an event occurred. So if it was
16 determined that there was reductions in wildlife,
17 whether it be seals or whales or caribou, there would
18 be compensation under that agreement.

19 THE CHAIR: Thank you.

20 MR. ANGUTIKJUAK: Qujannamiik. The long road,
21 it seems like it will be a long fence for our access to
22 animals. The train railroad will be like a long
23 railroad fence. Our Clyde River residents go to
24 Igloolik area for hunting when they are scarce in our
25 area. Perhaps it may be -- perhaps you may know what
26 compensation would be for animals, looking at number of

1 years and number of people.

2 And once the project is completed, the land will
3 not be returned to its original state, and I had worked
4 in the cleanup projects in DEW line sites close to
5 Clyde River, and that site is now different, and there
6 had been different structures. There may be some
7 vegetation growing, but we think once the animals are
8 moved out, when the animals migrate down, and they go
9 all over, then the sea water have a very -- it's a very
10 rough water. That is all the question I have.

11 THE CHAIR: Applicant?

12 MR. CURRAN: Thank you, Mr. Chair. It's
13 Oliver Curran with Baffinland.

14 Just to make clear related to your question on the
15 barrier to caribou along the railway, there are no --
16 along the railway corridor, there are no fences, and we
17 did a lot of work with Inuit observers in the field to
18 determine where the caribou paths were and where they
19 would be crossing the railway in the future. So in
20 those locations, we've ensured that the banks of the
21 railway will be such that caribou can cross over. So
22 in environmental impact statement, we clearly assessed,
23 you know, would the railway be a barrier to caribou,
24 and the outcome of that is that it won't be, and any
25 potential areas where we thought it might be, we've
26 mitigated those areas. Thank you.

1 THE CHAIR: Thank you.

2 MR. ANGUTIKJUAK: My last question, when you are
3 in a meeting, if you have committees or management
4 committees, have there been involvement from
5 settlements in Igloolik, Pond Inlet, Arctic Bay so that
6 they would be communicating to the public? Do you have
7 someone like this involved? I understood that you had
8 just arranged the whole meeting here, and the other
9 meetings in March and in January, we were not informed
10 properly. Perhaps we're too far from this area. Why
11 is that?

12 THE CHAIR: Applicant?

13 MR. CURRAN: Thank you, Mr. Chair. Oliver
14 Curran with Baffinland. Yeah, another -- it's a good
15 question.

16 And I guess, I mean we've had extensive community
17 consultations over a number of years with all the North
18 Baffin communities, including the HTO, and during
19 the -- prior to the environmental assessment process,
20 we had a lot of meetings with the North Baffin
21 communities and the HTO to understand and collect all
22 of the traditional knowledge related to wildlife, so
23 those meetings were prior to 2010. And then throughout
24 the environmental assessment process, we visited all of
25 the North Baffin communities, including Clyde River,
26 doing presentations to ensure that everybody was aware

1 of what was being studied and what the outcomes were.

2 We also have community liaison officers in the
3 North Baffin communities including Clyde River. So
4 these liaison officers are there, have offices, so that
5 people from the community can come, they can look at
6 the environmental assessment document, they can look at
7 the water licence application, as well, we have all of
8 the environmental assessment and water licence
9 documents at the hamlet offices in all of the North
10 Baffin as well. So that's just a summary of some of
11 the work Baffinland has done to ensure that the
12 communities are involved with the process.

13 And then in addition to this, the Qikiqtani Inuit
14 Association has the Mary River working committee in
15 each of the communities. So they're also a mechanism
16 that information can be provided to the hamlet and the
17 community, you know, on a monthly or day-to-day basis.
18 Thank you.

19 MR. ANGUTIKJUAK: Thank you.

20 COMMUNITY INFORMATION SESSION:

21 THE CHAIR: Thank you. This must mean
22 that we're finally coming into our community session,
23 and good evening everyone, and welcome to this
24 community session associated with the Baffinland Iron
25 Mines Corporation Type "A" water licence application
26 for the Mary River Project.

1 My name is Thomas Kabloona, and I'm the
2 Chairperson of the Nunavut Water Board, and I would
3 like my fellow Board Members to introduce themselves to
4 you.

5 MR. MRAZEK: Good evening. My name is Ross
6 Mrazek. I am a Board Member for Nunavut Water Board.
7 Thank you.

8 MR. AGLUKARK: I am David Aglukark. I am
9 from Arviat. I am a member of the Nunavut Water Board.

10 THE CHAIR: And one of our newest Board
11 Members who is joining us as an observer, Joseph
12 Pameolik.

13 Now, I would like to turn over this session to
14 Damien Cote, the Executive Director of the Nunavut
15 Water Board.

16 MR. AWA: I'm sorry, Mr. Chairman, I
17 think we're skipping out people from -- committees from
18 Pond Inlet.

19 THE CHAIR: When can we deal with this
20 again? We have community session. And further, I was
21 advised earlier that we have an interpreter, Jesse
22 Nutarak. Thank you.

23 Damien, go ahead.

24 OPENING REMARKS BY NWB EXECUTIVE DIRECTOR:

25 MR. COTE: Thank you, Mr. Chairman.

26 Before beginning, I'd like to point out for those

1 who have just joined us that we have at the entrance
2 these pieces. I'll be speaking mostly in English --
3 all in English -- and presumably, there will be many
4 among you who want to speak in Inuktitut, so if you
5 need one of these, they're at the back table. And we
6 may have limited numbers, but perhaps there's a way to
7 share so everyone can understand in the language they
8 prefer. Channel 1 is in English, Channel 2 is in
9 Inuktitut.

10 So to all of you, welcome to the community
11 presentation for the Mary River Project Type "A" water
12 licence application. To the community of Pond Inlet,
13 thank you for welcoming us once again in your
14 community.

15 My name is Damien Cote. I'm the Executive
16 Director of the Nunavut Water Board. I have with me a
17 few people, and I would ask them to wave when I say
18 their name. With the Water Board at the very back is
19 Megan Porter, and Megan will be helping distribute
20 headsets if you need some. Megan is a Licence
21 Administrator Assistant with the Nunavut Water Board.

22 At the table here is Sean Joseph, Technical
23 Advisor with the Water Board. Next is David
24 Hohenstein, Director of Technical Services with the
25 Water Board. Behind me is Ben Kogvik, Secretary and
26 Interpreter with the Water Board. On my immediate

1 right is Teresa Meadows, who is a lawyer at the Water
2 Board.

3 We also have among us two friends from the Nunavut
4 Impact Review Board. There is Amanda Hanson, who I
5 think is at the back, Director of Technical Services at
6 the Nunavut Impact Review Board, and Jaswir Dhillon,
7 who I believe is also at the back with the Nunavut
8 Impact Review Board.

9 As you may have noticed, also among us are
10 obviously, hopefully, many people from Pond Inlet, but
11 we also have various agencies, which I'll introduce
12 momentarily, but we have community representatives from
13 Igloolik, from Hall Beach, from Arctic Bay, and from
14 Clyde River. We also have in front of me the
15 Applicant, and I'll list off many of the other agencies
16 we have with us just in a moment.

17 Before we get started, a few housekeeping items.
18 I've already mentioned about the earpieces that are
19 available at the back. There's also a sign-in sheet,
20 which is also with Megan at the back, and hopefully
21 you've all signed in. If not, I'd ask you at some
22 point to do so. Washrooms are through these doors. We
23 have two exits, one behind me and one behind you. And
24 there might still be a bit of coffee available at our
25 table over there. Hopefully there's still some left.

26 This evening, we're hoping to have a fairly

1 interactive session. We're going to have a few
2 presentations. First, the Water Board will give a
3 short presentation. We'll then invite questions and
4 comments from the audience. We'll then have the
5 Applicant, Baffinland, give a presentation as well.
6 We'll go to comments and questions afterwards. Once
7 that's done, we'll have various groups offer
8 presentations, short presentations or remarks. We'll
9 invite the Qikiqtani Inuit Association, the Government
10 of Nunavut, Aboriginal Affairs and Northern Development
11 Canada, Environment Canada, Fisheries and Oceans
12 Canada, and Natural Resources Canada. So we have
13 representatives from each group, and we'll hear from
14 them briefly tonight in turn.

15 We also have for your benefit handouts that are at
16 the back table for many of these presentations, quite
17 possibly all of them. If you wanted to follow along,
18 I'd invite you to visit the back table, and the
19 presentations should be available there, both in
20 Inuktitut and in English.

21 So we're just about to get started, but before
22 doing so, we have a tradition to respect Elders at the
23 Water Board. As such, if at any time there are Elders
24 among us who would like to speak, we'd invite you to
25 indicate that to Staff members. We -- I think we'll
26 have Jaswir and Megan assist with this. And as our

1 Chairman indicated this morning, we would invite you to
2 introduce yourself, say your name, please, and also
3 make sure you have the microphone before speaking so we
4 can keep track of -- it's all being recorded, so we
5 keep track of this. So please just I'd invite you to
6 wait for the mic.

7 We'll also have, and this is the last point, a
8 sheet of paper available. We'd also ask you to write
9 your name on the sheet of paper. It's to help us keep
10 track of who is speaking, and it will make it much
11 easier for us to keep track of the comments tonight.

12 So with that being said, we'd like to start with
13 our agenda, and first on our agenda is the presentation
14 which is already loaded, so I'd invite my colleagues,
15 Sean and Dave to give us a short Water Board
16 presentation, please.

17 COMMUNITY PRESENTATION BY NWB STAFF:

18 MR. JOSEPH: Thank you, Damien, and thank
19 you, Mr. Chair. Good afternoon (sic) to everyone. My
20 name is Sean Joseph. I'll be doing the presentation on
21 behalf of the Nunavut Water Board for the Mary River
22 Project Type "A" water licence application.

23 So I will just start off with a few background --
24 a bit of background information about the Nunavut Water
25 Board. The Nunavut Water Board is an institution of
26 public government established under Article 13 of the

1 Land Claims Agreement. The object of the Nunavut Water
2 Board is to provide for the conservation and
3 utilization of water in the Nunavut Settlement Area,
4 except in National Parks, in a manner that will provide
5 the optimum benefits for those waters for Nunavut
6 residents in particular and Canadians in general. The
7 Nunavut Water Board has the responsibility and power
8 over the regulation, use, and management of freshwater
9 in the Nunavut Settlement Area.

10 The application -- I'll move on now to the water
11 application that is before the Board. The application
12 that is before the Board is by Baffinland Iron Mines
13 Corporation for a 25-year Type "A" water licence to use
14 water and deposit waste in support of the Mary River
15 Project. Activities related to the use of water and
16 the deposit of wastes are proposed to be undertaken at
17 the Milne Inlet site, the mine site, Steensby site, and
18 the railway corridor. Water use during the peak
19 construction phase of the project is estimated at 1,585
20 cubic metres per day. Water use during the operation
21 phase of the project is estimated at 625 cubic metres
22 per day.

23 Continuing with the application that is before the
24 Board, the water use requested by the Applicant is for
25 both domestic and industrial purposes. Some of the
26 activities under the Type "A" water licence application

1 that could potentially affect water sources include
2 construction of bridges and roads, installation of
3 culverts, flood control, diversions, and flow
4 alteration.

5 Water sources proposed for use in support of
6 the -- of activities at various project sites are
7 listed in the table below. For the Milne project site,
8 the water source that is proposed for use is Philips
9 Creek during the summertime and 32km Lake during the
10 wintertime. At the mine site, the water use that is
11 proposed for -- the water source that is proposed for
12 use is Camp Lake. At the Mary River site, the water
13 source proposed for use is 3km Lake and 10km Lake. For
14 the railway camps, water sources proposed for use
15 includes Cockburn Lake, Nivek Lake, Ravn River Lake,
16 and Camp Lake, and for various locations throughout the
17 project, minor locations, we would have various unnamed
18 water sources.

19 In terms of waste that will be generated from
20 activities associated with the Type "A" water licence
21 application, some of those wastes include waste rock,
22 sewage, and sewage sludge, fuel and oil-contaminated
23 water, solid wastes, contaminated soil and/or water,
24 hazardous waste, which would be stored and transported,
25 and bulky items or scrap metal.

26 Moving on to the procedural history of the

1 application, we would not go in depth with this. The
2 Proponent has -- the Chairman this morning, sorry, has
3 actually went quite in depth into the procedural
4 history of the application, so we will just mention a
5 few items in there and move on.

6 So the application, the final Type "A" water
7 licence application was submitted to the Water Board in
8 February 2012. In April 2012, the Nunavut Water Board
9 issues its completeness review for the application and
10 requested that parties begin the completeness check and
11 review of -- and/or review of the application.

12 In June 2012, the NWB received technical review
13 comments from Aboriginal Affairs and Northern
14 Development Canada, Environment Canada, Fisheries and
15 Oceans Canada, and the Qikiqtani Inuit Association. In
16 October 2012, Baffinland Iron Mines Corporation
17 provided response -- or responses to technical review
18 comments submitted by the intervening parties.

19 In October 2012, the NWB held its technical
20 meeting and pre-hearing conference for the Type "A"
21 water licence application -- no, it's a preliminary
22 technical meeting, sorry, for the Type "A" water
23 licence application. In January 2013, the NWB held a
24 technical meeting and pre-hearing conference in Pond
25 Inlet for the Mary River Project Type "A" water licence
26 application, and on January the 25th, NWB issued the

1 pre-hearing conference decision for the Mary River
2 Project Type "A" water licence application.

3 On February the 1st, 2013, NWB issued its official
4 notice for the Mary River Project public hearing. On
5 March 22nd, 2013, final written submissions for the
6 application was received from Aboriginal Affairs and
7 Northern Development Canada, Environment Canada,
8 Fisheries and Oceans Canada, Natural Resources Canada,
9 and the Qikiqtani Inuit Association. On April the 5th,
10 2013, Baffinland provided its final submission, which
11 included responses to interveners' final submissions.

12 So I'll just do a brief run-through of the typical
13 process for a Type "A" water licence application. We
14 would not go in depth into this because we have that
15 information available on our website, or we can provide
16 it upon request. So upon receipt of a typical
17 application, the NWB would determine whether the
18 application is Type "A" or "B". If the application is
19 Type "A", the NWB would conduct a concordance review.
20 If the concordance review determines that additional
21 information is required, the Applicant would be
22 requested to provide additional information. If not,
23 the Proponent -- the NWB will issue notice of the
24 application. Minimum notice period is 30 days.

25 Upon the end of the notice period, we would
26 receive submissions from -- written representations or

1 submissions from respective parties. If additional
2 information is required again, we would ask -- we would
3 ask the Proponent or the Applicant to provide same.

4 Following that step, the NWB would hold a
5 technical meeting or a pre-hearing conference, which we
6 held for this application back in January. The NWB
7 after that would issue a pre-hearing conference
8 decision, which we've done in January as well for this
9 application, and then the NWB will issue a notice, a
10 minimum of 60-day notice period is required for a
11 Type "A" water licence application.

12 Following that, parties would exchange
13 information. Parties would prepare for the public
14 hearing, and then the NWB would hold a public hearing,
15 which it is doing right now. Following the public
16 hearing, the NWB would issue a decision to approve of
17 the application and licence to the Minister. And you
18 can have two outcomes: The Minister may approve of the
19 issuance of the licence, or the Minister does not
20 approve of the issuance of the licence. On the flip
21 side, the NWB can issue a decision not to approve of
22 the application to the Minister, and the Minister would
23 approve of the decision, or the Minister would not
24 approve of the decision.

25 So that's a brief overview of the licencing
26 process for a typical Type "A" water licence

1 application . We'll move on to the next step for the
2 application.

3 The public hearing for the application, as you
4 know, began earlier on today and will continue until
5 Thursday of this week. The information filed with the
6 Board and provided during the public hearing will
7 assess the Board in determining whether or not
8 substantive issues associated with the application have
9 been or are being sufficiently addressed prior to the
10 Board's decision on the application.

11 All previous technical meetings and pre-hearing
12 conference were conducted by the Board Staff. The
13 public hearing for -- the public hearing -- for the
14 public hearing, sorry, the Board Panel -- the Board
15 Members led by the Board Chairman would be here to
16 listen to Elders, parties, community members, and
17 members of the public regarding their views on the
18 water licence application.

19 Following the public hearing, the Panel will take
20 some time, usually around 30 days, to consider all the
21 submissions received and will write to the Minister of
22 Aboriginal Affairs and Northern Development Canada
23 summarizing the Board's decision regarding whether a
24 licence should be issued.

25 If the Board recommends that a licence should be
26 issued, a draft licence will also be attached to the

1 decision submitted to the Minister of Aboriginal
2 Affairs and Northern Development Canada for
3 consideration.

4 I'll just touch a little bit on interveners'
5 participation. Parties present here today: Aboriginal
6 Affairs and Northern Development Canada, Environment
7 Canada, DFO, NRCan, and QIA have participated
8 throughout the licencing process for the Mary River
9 Type "A" water licence application. We also have here
10 with us today, as was mentioned earlier on, we have
11 Government of Nunavut, as well as NTI.

12 The parties have provided the Board with and the
13 Proponent with valuable technical information on the
14 issues related to water use and waste disposal
15 activities. They have also participated in both formal
16 and informal discussions, which the Proponent and
17 the -- with the Proponent and the Board with the aim of
18 addressing issues that they have identified during the
19 review process.

20 I would just like to touch a little bit on
21 community participation. The NWB encourages all
22 community members to participate in the public hearing
23 for the application, as well as this community session
24 here tonight. The public hearing will continue
25 tomorrow and everyone is also welcome. The interested
26 person can also contact Megan Porter at the back and

1 Jaswir Dhillon if they would like to provide the Board
2 with written comments on the water licence application
3 or if they would like to look through the documents
4 that have been filed with the Board to date. The
5 documents regarding the application are also available
6 at the Board's public registry. All of the materials
7 can be accessed from the NWB FTP site, and Megan can
8 also show you the access information or the link to the
9 site.

10 And this last and final slide is just a list of
11 the Board Staff that is present here today. We also
12 have the Board -- the Mary River panel here and our
13 legal counsel as well, and I would just like to --
14 that's the final slide. Thank you for your attention
15 and time, and if you have any question, please feel
16 free to ask.

17 MR. COTE: Thank you very much, Sean.

18 As mentioned, we have a few more presentations
19 this evening, but at this time, we'd welcome questions
20 or comments on the Water Board presentation. The next
21 presentation, you'll recall, is Baffinland's, but we're
22 welcoming any questions you may have at this time.

23 Seeing none, I'll then proceed by passing the
24 floor to Baffinland for your presentation to the
25 community.

26 COMMUNITY PRESENTATION BY BAFFINLAND:

1 MR. MADSEN: Good evening, Mr. Chairman,
2 Board Members, Board Staff, and all the communities
3 from the North Baffin that made their way down, Elders,
4 and the residents of Pond Inlet. In the interests of
5 time, we're going to keep our presentation quite short
6 tonight. We'll run through a lot of the things that we
7 discussed today during the hearing, so a lot of these
8 slides will be very similar. We have a few additional
9 ones in here.

10 My name is Erik Madsen. I am the Vice President
11 of Sustainable Development with Baffinland. Our team
12 is pleased to be here for this evening community
13 session to provide an overview of Baffinland's
14 presentation provided earlier today. We look forward
15 to listening and addressing any questions that come up
16 during this public session.

17 This slide outlines the items that were discussed
18 at today's meeting. We will not go through them all,
19 but there's a list there, and the people have the
20 presentation can see the various points that were
21 discussed this afternoon.

22 I would like to just introduce the team we have
23 here remaining at the table. We have Joe Tigullaraq to
24 my right here, who is our Northern Affairs manager that
25 many of you know. Next to me is Oliver Curran,
26 Director Sustainable Development. We have Fernand

1 Beaulac, one of our Senior Consultants. We have Jim
2 Millard, our Environmental Manager. We have Greg
3 Missal, our Vice President of Corporate Affairs, and we
4 have Joe Krimmerdjuar, who is one of our new Baffinland
5 liaison officers here in Pond Inlet that many of you
6 know.

7 Very quickly I'd like to give a general project
8 overview. I think most of the people that are here in
9 the room are very familiar with the Mary River Project
10 by now.

11 The Mary River Project is situated on North Baffin
12 Island, approximately 1,000 kilometres north of
13 Iqaluit, 160 kilometres southwest of Pond Inlet, and
14 the proposed Steensby Port is located approximately 300
15 kilometres east of Igloolik. Much of the year is cold,
16 and the reality is that this cold weather has been
17 considered and designed for the Type "A" water licence
18 application. Additionally, we have extensive
19 experience in working in this climate -- and that
20 reminds me, I forgot to introduce one other member of
21 our team, Mr. Dave McCann, who's out in the audience.
22 He's our site manager and has been for a number of
23 years and also resides here, a lot of the time here in
24 Pond Inlet.

25 Baffinland has worked closely with the local
26 communities over the past number of years and employs

1 people from the North Baffin communities. We look
2 forward to an ever closer mutual beneficial
3 relationship as this project is developed and operated
4 in accordance with the project certificate and the
5 conditions that will be placed in this Class "A" water
6 licence.

7 This here shows a larger scale of the Mary River
8 Project. We have the mine site up in the middle there,
9 and then we have the Milne Inlet Tote Road that goes
10 out to Milne Inlet, and then we have, going to the
11 south, is 150-kilometre railway to the Steensby Port.

12 This slide shows the various water management
13 areas for Baffin Island and the Melville Peninsula.
14 The two water management areas in which the project
15 will operate are Area 48 for the Milne Inlet and the
16 Tote Road area, which is up in the north here, Area 48,
17 and Area 21, which is where the railroad and the
18 Steensby Port location will be located.

19 The Mary River Project will produce high quality
20 iron ore for the world markets. The project components
21 are the mine site itself with an open pit and
22 preparation of mined ore for transport. Due to the
23 high-grade iron ore, as has been discussed a few times
24 today, there will be no processing or milling required,
25 and therefore, no tailings will be produced, and this
26 is a significant environmental benefit for the project

1 for a water-use perspective, and a discharge
2 perspective.

3 As a whole, the project may appear to be
4 unprecedented, but all of the individual elements of
5 the project have been built and operated in similar
6 environments. There are numerous examples to learn
7 from both across the Canadian north and
8 internationally. The project has incorporated
9 extensive site-specific knowledge and built on
10 engineering knowledge that has already been tried and
11 proven for other projects in the Canadian north. The
12 study and analysis we've done and our commitments to
13 continue to advance our knowledge positions us to face
14 the challenges associated with design and operation
15 aspects related to water use and water discharge.

16 The remaining project components entail
17 150-kilometre railway, a Steensby Port location that
18 will accommodate vessels capable of year-round
19 shipping. There will be a Milne Inlet Port developed
20 and mostly used during construction and for
21 transportation of oversized equipment that will be
22 hauled down the Tote Road, which will be upgraded.

23 I briefly want to touch and provide an update on
24 the early revenue phase. As most are aware, in early
25 January of this year, Baffinland made the announcement
26 that it was moving the Mary River Project into a phased

1 approach, that although we recently received a project
2 certificate on December 28th in 2012 for the railway
3 project and shipping out at Steensby Port, Baffinland
4 had now decided to pursue a trucking option. This will
5 utilize the Tote Road and will look at shipping
6 3-and-a-half million tonnes of ore annually during the
7 summer months only from the Milne Inlet Port.

8 Baffinland will be submitting a detailed addendum
9 document to the final environmental impact statement at
10 the end of June this year. So basically in two months
11 from now. This will initiate the process review for
12 this early revenue phase.

13 The Nunavut Impact Review Board will then set the
14 process for the review of this new submission, and
15 should any amendments be required to the Type "A" water
16 licence, Baffinland would reapply for these in due
17 course. With the submission of this new addendum
18 document, it will mean that there will be more meetings
19 here in Pond Inlet once this document is submitted to
20 review this application.

21 In summary, Baffinland recognizes and acknowledges
22 that these hearings for the next three days for the
23 Type "A" water licence will have nothing to do with
24 this early revenue phase project. So this was just an
25 update.

26 In the next few slides, I would like to discuss

1 the status of our Type "B" water licence and the recent
2 Type "B" -- the new recent Type "B" application applied
3 for.

4 Baffinland would like to remind all parties that
5 we do have an existing Type "B" water licence that
6 allows us to undertake activities listed on this slide,
7 and this licence expires next April, April 5th, 2014.
8 It is Baffinland's intention to maintain this licence
9 for ongoing exploration activities in the future, so
10 we'll be applying to renew that Type "B" licence.

11 We threw in a few photos here. This is an aerial
12 photo of one of the crossings on the Tote Road between
13 Mary River and Milne Inlet.

14 Baffinland intends to retain this existing
15 Type "B" water licence for ongoing exploration. One of
16 the issues identified from the technical meetings was
17 to outline what activities would remain under the
18 existing Type "B" licence and what activities would be
19 moved into the Type "A" water licence. Baffinland
20 provided this information to all parties and the
21 Nunavut Water Board last October 31st.

22 There was also a request to outline what amount of
23 security would remain with the Type "B" licence and
24 what would be transferred to the new Type "A" licence.
25 Later in this presentation, the breakdown of securities
26 will be presented, but as a result of the updated

1 closure cost, Baffinland will be requesting that the
2 amount of security in our Type "B" licence be reduced
3 to \$1.25 million.

4 I will now touch base on the new Type "B" water
5 licence application that was recently applied for. On
6 March 12th, 2013, after consultation and recommendation
7 by the Nunavut Water Board Staff, Baffinland submitted
8 a new Type "B" application that would allow various
9 earthworks related to the approved project to commence
10 during this transition time until the Type "A" licence
11 is issued. These earthworks will see the construction
12 of another 5 million litre fuel tank at Milne Inlet, a
13 new lined polishing pond for sewage at Milne Inlet, a
14 new lined fuel storage area for future fuel tanks at
15 Milne Inlet, as well as camp lay-down areas for future
16 camps that will be brought in later this fall.

17 Once again, when the new Type "A" licence is
18 issued, all these activities with this new Type "B"
19 licence will be transferred to that Type "A" licence.

20 This slide here shows a photo of the existing
21 Milne Inlet site, and it provides a good idea of what
22 we're discussing in this new Type "B" application. The
23 photo shows the existing facilities at Milne Inlet.
24 You will note that there is already one 5 million litre
25 tank situated inside a lined engineered berm structure.
26 That tank was constructed a couple years ago, and now

1 all the diesel fuel from the bladders that were located
2 here has been transferred into this 5 million litre
3 tank. So one of the things we'll be asking for is the
4 construction of another 5 million litre tank that will
5 be located or situated right beside this other one, so
6 similar activity that was already approved.

7 And there will be again a new polishing pond --
8 you don't have the old one here -- but located -- we
9 asked to be built in the same location, and some
10 earthworks, we have an existing camp here, but we want
11 to build some pads with crushed material so that
12 they'll be built, so when the sea lift comes in, those
13 new camps can be placed on those pads. So this
14 Type "B" application is strictly for earthworks to be
15 done between the period of May until about July 1st.

16 So just a quick update on the water compensation
17 agreement. Baffinland and the QIA are currently
18 negotiating an operational lease, and this will also
19 include provisions for a water compensation agreement.
20 Baffinland and the Qikiqtani Inuit Association have
21 recently reviewed drafts from each other, and
22 discussions continue between both parties while these
23 hearings are ongoing. Baffinland and the QIA are well
24 aware that a water compensation must be agreed upon
25 between the Inuit landowner and the Proponent before
26 the Minister issues a water licence. But as noted

1 earlier, this should not hold up these hearings that we
2 are undertaking this next three days. Both the QIA and
3 Baffinland will continue to keep the Board updated in
4 discussions, and parties will notify the Board in
5 writing when an agreement has been reached.

6 I will turn it over now to Oliver to touch base on
7 a few of the other areas.

8 MR. CURRAN: Thanks, Erik. I'd like to now
9 provide an overview of the Type "A" water licence
10 application. This slide summarizes how the information
11 in the Type "A" application is organized. So as you
12 can see, there were 12 attachments covering all aspects
13 required in the application. So we have everything in
14 here from quarry documents, water crossings, documents
15 related to explosives, and preliminary mine closure
16 plan. There's a whole bunch of attachments included,
17 and the licence is actually behind us on the table
18 here, the water licence application.

19 The next section here is on geotechnical aspects
20 and permafrost, which are very important considerations
21 as they relate to the construction of facilities and
22 infrastructure. So as an example, I've put this
23 diagram on the screen which shows a cross-section of
24 the railway embankment on ice-rich soils with the
25 following features. So starting on the bottom here,
26 you have your existing ice-rich soils overlane by a

1 layer here of thaw-stable sand and gravel, and so that
2 remains frozen. And then this portion here is all of
3 the quarry material for the railway embankment, and on
4 top of that is where you actually build the railway.
5 So this is an important example of how the permafrost
6 is preserved.

7 So a very important part of this Type "A" water
8 licence application relates to water use. And this
9 table here lists water intake locations for various
10 camps and the requested annual permit limits in cubic
11 metres. So you see along here, we have all the
12 different project areas, Milne Inlet, Mary River,
13 Steensby Port, and some of the rail camps, and then
14 over on the right-hand side here are the various permit
15 limits in cubic metres per year.

16 So water management aspects include a wide range
17 of measures and controls that are used to manage water
18 across the site. So the advantage of this project is
19 that there is no processing plant or mill that adds
20 chemical reagents, and hence, there is no processed
21 water or mine tailings to contain in ponds. This is
22 unique for mining operations and makes the project very
23 similar to a large quarry operation in many aspects.

24 With regard to the waste rock and ore stockpiles,
25 runoff will be directed to sedimentation ponds and
26 monitored for quality prior to discharge to the

1 receiving environment. Discharges for more stockpiles
2 and waste rock stockpiles will meet all established
3 effluent criteria, and I'll review some figures a
4 little bit later on showing these features.

5 So moving on to water quality. With regard to
6 water quality, the following issues were identified by
7 agencies during previous meetings and in their
8 submissions to the Board. So I have some main bullet
9 points listed here. So the first is treated sewage and
10 oily water effluent and their associated discharge
11 limits. The second is mine contact water and the
12 application of the mining metals effluent regulation,
13 as well as pit water quality and legacy issues. The
14 third was landfarm and landfill runoff and seepage,
15 water crossings related to construction and
16 decommission of crossings and construction and
17 post-construction monitoring, and lastly, sediment and
18 erosion control during construction and operations.
19 The next several slides will speak to these aspects.

20 So we'll first look at the treated sewage and oily
21 water effluent. And I'll skip over this slide because
22 the next slide shows the layout of Milne Port, and so
23 I'll show you some of the discharge locations there.
24 So there will be two main effluent streams at Milne
25 Port. The first will be the treated sewage effluent
26 from the sewage treatment plant, and the second will be

1 the effluent stream from the oily water treatment
2 plants.

3 So on this diagram here, I'll just show some of
4 the important features here. So that photograph that
5 Erik had up before of the steel tank, that would be
6 located over here, but really what we have is just one
7 discharge to an existing ditch, a nonfish-bearing
8 ditch, which flows into Milne Inlet over here. This is
9 the ocean. So there's only one combined discharge
10 where the sewage effluent and any of the water, treated
11 oily water, would be discharged here, and that would
12 run into Milne Inlet, and it's very important to note
13 that that discharge would have to meet all of the
14 effluent criteria in the water licence.

15 And so I'll move to the next slide and show you a
16 layout of Steensby Port and describe the discharge
17 location there. So this is a layout of Steensby Port.
18 So we have the island here, the ore stockpile, and any
19 runoff from the ore stockpile would be collected in a
20 sedimentation pond, and the discharge or outfall to the
21 ocean would be right here. And then we would also have
22 another outfall similar to the one I showed you at
23 Milne Port where any of the -- this treated sewage
24 effluent and oily water from any of the maintenance
25 shops over here, again, it would be a combined
26 discharge, and the outfall to the ocean would be right

1 there. So at Steensby Port, there's only two
2 discharges.

3 And I'll describe the discharges at the mine site
4 a little bit later. This is just a photograph of the
5 existing camp at Steensby. This is what is there at
6 Steensby right now, and similar to the photograph of
7 Milne Port, the Type "A" water licence covers a lot
8 more infrastructure than what's there, so the
9 development area would be much larger than what we're
10 showing here.

11 So this is a layout of the mine site, and just to
12 point out some of the features we've been talking about
13 throughout the day, the existing camp is located here
14 with the existing airstrip. This is Camp Lake where
15 the water is taken from. We have the open -- this will
16 be -- this is Deposit No. 1, and this will be the
17 location of the open pit, and this will be the location
18 of the waste rock stockpile. So -- and this is the
19 Mary River flowing this way here.

20 So the mine site also has a quite simple layout in
21 terms of discharges. Any of the natural runoff, so any
22 snow and water that melts on the waste rock stockpile,
23 will run this way into this sedimentation pond, which
24 then runs down into Camp Lake. And then water running
25 this way will go to this sedimentation pond, which runs
26 down this tributary to the Mary River. And then

1 there's only two other discharge locations. There's a
2 run-of-mine ore stockpile here, so any discharge from
3 there would go to the Mary River this way, and then we
4 have treated sewage effluent, which would be discharged
5 here, as well as the ore stockpiles, any discharge from
6 the ore stockpile would be also discharged to the Mary
7 River here. And similar to Milne Port and Steensby
8 Port, any discharge to any of these water bodies has to
9 meet the criteria within the water licence.

10 And this table is just an example of the proposed
11 limits for treated sewage effluent discharge to
12 freshwater. And as you can see from the table, there
13 are many parameters that are examined. So we're
14 looking at a number -- the water has to test for a
15 number of parameters, including phosphorus, oil and
16 grease, pH. There's a number of them here. And this
17 table shows the proposed limited for oily water
18 treatment at maintenance shops, and again, there are
19 many chemicals that are examined, and these are
20 industrial waste guidelines in Nunavut. So the
21 guidelines that would be -- that would likely be in the
22 water licence would be those discharge criteria for
23 Nunavut.

24 So now I will speak to water that has come in
25 contact with our mining activities, and I'll just skip
26 over this slide and address it in the figure. So this

1 is just a reminder of our mine contact water. So our
2 mine contact water is anything that's come in contact
3 with the ore stockpiles, which are here and here, or
4 anything that's come in contact with the waste rock
5 stockpile, which is water flowing from here and there.
6 So there's only four discharges for mine contact water
7 at the mine site.

8 So water quality modelling indicates that the
9 waste rock stockpile and open pit area runoff water
10 will not contain concentrations of metals in excess of
11 discharge requirements based upon the mining metals
12 effluent regulation discharge criteria. So we're well
13 below that criteria. However, in the event that
14 ongoing water quality modelling or field monitoring
15 shows a trend towards effects on the receiving water
16 quality that adaptive management will be considered,
17 and I'll have a flow diagram that describes that in a
18 little bit more detail later on.

19 So now moving on to waste management. So we've
20 had a lot of questions today related to the waste rock,
21 and this schematic describes how we will -- how the
22 waste rock stockpile will be segregated. So Jim and
23 Fernand have been talking a lot about the potentially
24 acid-generating material, so that would be situated in
25 the stockpile here, and any of the nonpotentially
26 acid-generating rock would go over top, and the idea

1 with this configuration is that you want the permafrost
2 to move up and freeze in this area, because essentially
3 the colder you can keep that potentially
4 acid-generating rock, the less chance there is that
5 you'll have runoff containing metals.

6 So geochemistry is very important in order to
7 understand what the quality of the water might be
8 flowing from the waste rock stockpile, so I have a
9 couple slides to deal with that. So geochemical
10 modelling is performed on waste rock and for
11 understanding pit water quality, and the following
12 slide provides a schematic of how this will be done.

13 And just by the way, if any of you are interested
14 in seeing what a sample of the waste rock actually
15 looks like, we have a core sample of it here. So when
16 we're talking about waste rock, this is what we're
17 talking about.

18 So this is a schematic which attempts to show the
19 modelling that was done, the geochemistry modelling.
20 Essentially here, this is, if you can imagine, this is
21 the predicted stockpile, and you have precipitation,
22 snow and rain in the summer, and it filtrates through
23 the waste rock pile, and this would be the water in
24 those ponds that I showed you before. So before the
25 water leaves these ponds, you have to ensure that it
26 meets the criteria, and then the water leaves those

1 ponds, and it goes into the receiving environment.

2 So it will go -- let's just talk about Mary River.

3 So once this water stream goes into the Mary River,
4 there's a monitoring program that takes place for the
5 life of the project to measure what the water quality
6 is in the river but also do studies on the fish and
7 other life in the water body to ensure that there are
8 no effects.

9 And so now we'll move on to management plans. So
10 as we've talked about before, management plans are
11 based on the principle of continual improvement and
12 adaptive management and is important to focus
13 management plans on mitigation measures and monitoring
14 of aspects that will ensure three main points right
15 here. So those points are project certificate terms
16 and conditions are implemented, that the Type "A" water
17 licence terms and conditions are met, and that company
18 commitments, goals, and objectives are achieved.

19 So contingency planning is a topic that many of
20 you would have heard about in the final hearings held
21 in Pond Inlet in July. There was a lot of discussion
22 on contingency planning. So related to the water
23 licence an emergency response and spill contingency
24 plan was submitted with the water licence application.
25 This management plan will be updated on an annual
26 basis, and the plan was updated already and submitted

1 to the Nunavut Water Board on March 31st to support the
2 2013 work plan. The next update is scheduled for the
3 end of 2013.

4 So now I'll spend a bit of time on monitoring as
5 this is very important for the life of the project. So
6 everything we've talked about in the water licence
7 relates to meeting certain criteria, and monitoring is
8 going to ensure that those criteria are met and that
9 those criteria are adequate for protecting aquatic
10 life.

11 So I showed this flow diagram earlier today, and
12 essentially it shows -- it's a layout of how monitoring
13 will be done for water and sediment quality in areas
14 adjacent to the mine site. So essentially on this
15 side, on this side of the diagram is your study design.
16 So you have your study design at the top here, and the
17 monitoring data, you're ensuring that the data is of
18 good quality and makes sense, and then you're doing a
19 statistical analysis of that data.

20 So essentially what that means is right now for
21 the last five or six years at Mary River, we've been
22 collecting data on water and fish, and when the mine
23 goes into operations, you're collecting more
24 information, and you want to find out if you're
25 having -- if you want to have an early warning system
26 to track if you're having an effect on the environment.

1 So then we progress to Step 2, and you want to be
2 able to compare to widely used criteria that are used
3 across Canada and also in the Arctic. And so here
4 there's different levels of action based on that
5 criteria. There's a low level, a medium level, and a
6 high level of action, and then along the right-hand
7 side here is all the management responses that can be
8 taken. So this ranges anywhere from evaluating the
9 data and confirm that you're meeting your objectives
10 within the AEMP, or the high action here would include
11 further risk assessment to determine what the actual
12 risk or effects are on aquatic life and mitigation to
13 prevent further -- well, you do action to try to
14 correct any problems that you're seeing.

15 So that concludes my part of the presentation, so
16 I'll hand it back to Erik to speak on closure,
17 reclamation, and security bonding.

18 MR. MADSEN: Thank you, Oliver, I just have
19 a few slides here. I'll be very brief.

20 This slide visualizes that Baffinland is virtually
21 mining a mountain, and it will take years of open-pit
22 mining, approximately ten years, before the pit reaches
23 a level where an actual bowl or open pit will be
24 formed. Then mining will continue for an additional
25 11 years, and that is when there will be pit walls in
26 the pit, and that they will be exposed to weathering.

1 Through ongoing drilling and characterization of the
2 rock, Baffinland will have more of a complete
3 understanding of the potential water quality generated
4 from the exposure of these pit walls over this ten-year
5 period. All of this updated information will be
6 required by the Class "A" licence to be submitted to
7 the Board on a regular basis for review.

8 Just want to show an example of how reclamation
9 could be done. There's three slides ahead that show --
10 this one here shows the existing facilities at Milne
11 Inlet. This was photos taken in 2011. This next slide
12 shows the Milne Inlet site after mobilization, and
13 we're hoping that the sea lift end of July, August, and
14 September, when all the materials come to site, this is
15 what the Milne Inlet site would start looking like,
16 bringing equipment and supplies in and then also moving
17 it to down to Mary River. So this is an example of
18 that.

19 And the last one here shows the site at Milne
20 Inlet after successful completion of demobilization,
21 removal of equipment, buildings, fuel tanks, and the
22 contouring of the site showing what it would look like.
23 So this is a simulation of how reclamation could be
24 done in an area.

25 The last two slides will talk a little bit about
26 security bonding. The numbers listed on this slide

1 show the overall estimated total security for both land
2 and water, and it's estimated at \$37.25 million. And
3 out of that, the breakdown of these costs are
4 94 percent of those costs are related to land
5 liabilities, and about 6 percent are water-related
6 liabilities.

7 You'll see up here, as indicated earlier, the
8 request is that 1.25 million stay in the Type "B" water
9 licence because we already have a significant amount of
10 security there in the Type "B", and we move this
11 22,650,000 over to the "A" licence, and we add the work
12 that we're planning to do in 2013, it adds up to about
13 \$36 million. And these -- this latest cost estimate
14 has been reviewed by Aboriginal Affairs and Northern
15 Canada, as well as the Qikiqtani Inuit Association, and
16 there appears to be an agreement on this amount of
17 estimate up until the end of 2013.

18 Baffinland suggests that there should only be one
19 security bond that covers both land- and water-related
20 liabilities. Baffinland is open to the suggestion that
21 the landowner, in this case, the Qikiqtani Inuit
22 Association, hold this bond, or both the landowner and
23 AANDC could hold this bond. This will require an
24 agreement between Aboriginal Affairs and Northern
25 Development and the Qikiqtani Inuit Association.

26 And the last point is as Baffinland has said,

1 Baffinland will not overbond, as this has been an issue
2 around Nunavut for a number of years.

3 In conclusion then, on behalf of the Baffinland
4 team and our consultants, we'd like to extend our
5 appreciation to the Board and the Staff for hosting
6 this community session this evening. It is our view we
7 have put forward an application and a monitoring and
8 management plans, including proposed licence
9 conditions, that will allow the Board to consider and
10 be in a position to develop and issue a Type "A" water
11 licence that will mitigate and protect any future
12 quality and quantity effects from the Mary River
13 Project.

14 Baffinland looks forward to commencing 2013 work
15 activities under the existing Type "B" licence, and
16 then moving on to this new Type "B" application that
17 we've applied for, and that will occur in mid May, and
18 then to continue works once, and if this type Type "A"
19 water licence is issued later, and hopefully by the end
20 of June, early July. In doing this, this will allow
21 opportunities for significant training and will allow
22 the hiring of North Baffin residents to commence the
23 construction of the Mary River Project.

24 Now, before we conclude our presentation, we do
25 have a computerized rendition of what the Mary River
26 site would look like, and we would like to play that.

1 It's only about, you know, 2 minutes long, but it will
2 give people an idea of what the Mary River site will
3 look like. It's all computerized. There's no sound to
4 this, and it's not all to scale, but it will give
5 people an idea exactly how the Mary River site will
6 look, and I'll outline the key features as we move
7 forward.

8 (VIDEO PLAYED)

9 So there's the airstrip on Mary River, and this
10 moves down to the main facilities that we're building.
11 There's the haul road up to the mine. This is where
12 we're mining. This is a crusher on the side of the
13 hill that will crush the rock down to size, and then
14 we'll haul it down to the mine facilities. These are
15 ore stockpiles located here. This is a power plant.
16 We have Arctic corridors so people won't have to walk
17 outside; they can walk from buildings through Arctic
18 corridors. Here's our fuel tanks.

19 These are our accommodation buildings, about three
20 floors, this is the kitchen area, probably a gymnasium
21 inside there. This is the truck shop. We'll have
22 large haul trucks to haul the ore. This here's an
23 example of the conveyor system. It will be covered in
24 the real one, and here is your railcars that will be
25 loaded with ore, and they'll will be heading down to
26 Steensby from this location.

1 So with that, Mr. Chairman, that concludes our
2 Baffinland presentation for the community session.

3 Qujannamiik. Thank you.

4 MR. COTE: Thank you, Baffinland.

5 At this time, with the Chairman's permission, I'd
6 like to suggest a short 10-minute break. I'd also,
7 during that break, it seems as though Baffinland -- I
8 hear Baffinland would be prepared to perhaps invite
9 committee members to their posters and perhaps answer
10 questions committee members may have on the posters.
11 When we reconvene, we'll open it up to questions on the
12 presentation that we just received from Baffinland.

13 So 10 minutes, Mr. Chairman? So 10 minutes,
14 please.

15 (ADJOURNMENT)

16 THE CHAIR: Welcome back. Damien, you can
17 carry on with what you were doing earlier.

18 PUBLIC QUESTIONS BAFFINLAND:

19 MR. COTE: Thank you, Mr. Chairman. We
20 are just about to begin again, please. We will
21 continue the community session. It is nice and bright
22 outside, but we are aware of the time of the day. We
23 will continue. If we need to continue tomorrow
24 morning, we do have that option -- tomorrow evening
25 rather, we do have that option, but we will continue
26 for a little longer, and we'll see where the discussion

1 takes us. We are mindful of the time, however, and so
2 we are taking that in observing how our process
3 continues this evening.

4 We left off after Baffinland's presentation before
5 the break, and I indicated that we would begin again
6 with comments and questions, so you've been very
7 patient listening to all these presentations. We would
8 now invite any of you to come up to the mic if you have
9 any questions and comments. Again, I would ask that
10 you write your name on a piece of paper that we will
11 have and also to make sure you have the mic and to
12 state your name in the microphone, please.

13 So, Jaswir, at the back, if we have a list,
14 please. Perhaps if you could approach the microphone
15 here. We'll record names before we take questions. So
16 the floor is open. I see a hand at the back, and we
17 have a microphone. Just before you begin, we're
18 clarifying a technical issue, so just bear with us,
19 please, as we record your name.

20 MR. C. SANGOYA: All right, thank you,
21 Mr. Chair. First of all, these statements written in
22 Inuktitut, these document, I think there are -- the
23 majority of share this that can read Inuktitut
24 fluently. Yet, those who speak English understand the
25 documents, but those of us who do read Inuktitut, some
26 of the pages are completely gibberish in our dialect.

1 Are we to have a whole hearing even without
2 understanding the documents?

3 For example, let me check first. What does this
4 say here, Keelayray ninga (phonetic)? What is that
5 talking about? Even we don't understand that
6 statement. Is it okay not to understand the documents?
7 I guess bilingual people are okay with us not
8 understanding what's going on. I'll have other
9 statements. I want these returned so they'll be
10 written down.

11 Three items, I have three statements to make,
12 three of them. One, we're dealing with issues that are
13 very serious to our lives here in the community, and
14 some of these statements I won't want people to make
15 fun of because they're very important statements.

16 We community members of the Pond Inlet know that
17 past that mountain towards Igloolik and Arctic Bay, the
18 rivers flow that way, and from that mountain, it flows
19 to this side. And the mountain and Amitausyo
20 (phonetic), those lakes passed before that, both have
21 fish in them. Lakes and marine ocean are different,
22 and there are lakes in Mary River with fish that we
23 know of.

24 And Baffinland is using those lakes for potable
25 water, and pollutants have been found in those lakes,
26 and these Baffinland guys are my friends, and they'll

1 stay my friends, but we have been told by employees
2 that their water lake during the summer is full of
3 condoms, and people pick them up along the shoreline.
4 The fish have problems eating the condoms, and the
5 river flows towards Igloolik, so I'm sure pretty sure
6 Igloolik people will catch fish with condoms in their
7 stomachs.

8 And the other item, here at Milne Inlet, the ocean
9 is full of fish and assorted wildlife, many assorted
10 wildlife. That so-called sonar, after somebody had
11 placed a sonar on the sea bottom, all the animals fled
12 the area. The Mary River employees stated they had not
13 known about this sonar equipment, and when we're not
14 informed of these events, those of us who use that area
15 a lot, if the Nunavut Water Board will just approve
16 their application, we will be seriously, deeply hurt.

17 And the third item, after the ship had been up
18 there in that area and after they have brought up the
19 sonar from the sea bottom, the wind started blowing
20 from that way, from the west. We found many dead cod
21 washed up along our shores. Baffinland stated they had
22 never heard of this. When they had not heard of this,
23 if -- when they say they haven't heard anything, and
24 their approval is accepted, then this would hurt us
25 more also. The ships used, I live in that area up
26 there during the summer for the animals, for narwhal,

1 for seals are affected deeply by the ships, especially
2 with the Coast Guard. Ships are the worst thing for
3 our marine wildlife. If the Canadian Coast Guard will
4 be allowed to pull up into that area along with the
5 ships, the animals of that area will be affected very
6 seriously. When there are narwhal, we don't go
7 boating. We try not to walk around too much on land,
8 but these Mary River people, they'll be going up there
9 back and forth, free will.

10 We heard recently that in northern Quebec, there's
11 a mine near there. Raglan, is it? There was a pond
12 with many fish, but women are told, Don't eat the fish
13 because there are pollutants now in the fish, and they
14 may cause abnormal pregnancies in women. And the
15 mining company says, We are not polluting anything.

16 As per the slides today, they showed us exactly
17 the same thing when that mine was starting up, and they
18 stated that we'd be using the Co-op for employees, and
19 they would hire employees here in the community, and
20 once they got their approval, they let us go, and we've
21 still not received an apology for those things. They
22 stated they would hire people if they moved back to
23 Iqaluit, and they're now using other contractors, and
24 not even one apology was issued. If they're going to
25 be this way, then this will hurt us more if the Nunavut
26 Water Board will approve their application.

1 Thank you, Mr. Chair.

2 MR. COTE: Thank you for the comments.

3 Baffinland?

4 MR. MISSAL: Thank you, Damien. Mr. Chair,
5 my name's Greg Missal. I'm the Vice President
6 Corporate Affairs with Baffinland. I do most of the
7 community meetings in the North Baffin that we've had
8 over the last few years, and including I think I've
9 been here in Pond Inlet I think this is my eighth time
10 since November, so we've had a number of meetings here,
11 particularly in the last while.

12 Caleb, thank you again for your comments. I think
13 most of the areas that Caleb covered off are things
14 that Caleb's very passionate about, and he's brought up
15 numerous times over the months in the last couple of
16 years.

17 The first point that Caleb brought up was
18 regarding I guess the reports of some condoms on the
19 shorelines that he was concerned about affecting marine
20 animals. We're not aware of that occurring, and if it
21 is occurring, we'd certainly like to talk to the people
22 that saw it so we can find out a bit more about it, but
23 we're not aware of that happening.

24 The second point was regarding the sonar, I think
25 anyone that's participated in any meetings here in Pond
26 Inlet has heard about the concerns of what people

1 believe are possibly sonar equipment somewhere out near
2 the mouth of Milne Inlet or somewhere in the Eclipse
3 Sound area. No one really seems to know if it's there
4 or who it might belong to. We know it doesn't belong
5 to Baffinland. That has nothing to do with us, but as
6 Caleb has mentioned, he's concerned about it, and we've
7 heard that concern from other people here in Pond Inlet
8 just as to what could be causing some of the things
9 that they believe that they're seeing here.

10 Regarding the dead cod, again, that's something
11 that we've heard come up here before. We don't have
12 any knowledge of anything that we at Baffinland did to
13 cause anything in terms of the dead cod that were
14 spotted or observed. Again, that's something that we'd
15 be happy to talk to the individuals more about who did
16 see that, but we don't have any information on that.

17 Regarding shipping, as you can well imagine,
18 shipping is one of the items that we talk about a lot
19 at community meetings here in Pond Inlet. I think
20 people here in Pond know quite a lot about shipping
21 because there's a lot of shipping that occurs already
22 in Eclipse Sound. I was here one time, it was I guess
23 the summer of 2012, and there were six ships that were
24 anchored out here, two cruise ships, a couple refueling
25 ships, and a couple of freighter ships on one day in
26 the summertime.

1 There's a lot of -- of course, the sea lifts come
2 in. There's a lot of cruise ship activity that comes
3 into Pond Inlet already. When we were here in January
4 for a community meeting, we spent a lot of time talking
5 about cruise ships, and I think one of the things that
6 came up at that meeting was that there's basically no
7 regulations that are in place for cruise ships in terms
8 of monitoring or any of their activities that they're
9 doing, and that's something that's a concern to the
10 people here in Pond and in other communities as well.

11 And if you compare that to what, you know,
12 Baffinland will be doing with its shipping activity,
13 we're going to be monitoring, we're going to be
14 reporting, we're going to have rules in place that we
15 need to follow, but none of that actually exists for
16 any of the cruise ships that come into this area.

17 Caleb touched on the point about local employees
18 here in Pond Inlet. There was a lot of employment of
19 people here in Pond Inlet when the bulk sample occurred
20 in 2008. Of course, that was a short-term program
21 where we employed it was a couple hundred people from
22 the North Baffin region, and of course, when the bulk
23 sample was finished, all of those people were let go
24 because the actual -- the work was done.

25 And of course, after the bulk sample, Baffinland
26 went through an ownership change over the course of

1 2009 and 2010, so it's been a -- it was a period of
2 transition for Baffinland and for the Mary River
3 Project, but of course, once we start constructing the
4 project and building it as a mine site, we'll be able
5 to employ people more regularly and on a full-time
6 basis.

7 And then I guess just going back to Caleb's first
8 point regarding some of the translations, we do the
9 best job we can in terms of translations. We use a
10 wide variety of translators from different communities
11 in the Qikiqtani region. Every once in a while, we do
12 get comments about some of the words in our
13 presentations that people believe aren't quite the
14 correct dialect, but we're constantly trying to get
15 better on that, so I do apologize, Caleb, if the
16 translation was off in this presentation.

17 Thank you, Mr. Chair.

18 MR. COTE: Thank you, Baffinland. I'd
19 invite to the floor other comments, other questions
20 from the audience.

21 MS. KOONARK: Leah Koonark from Arctic Bay.
22 In Arctic Bay, we had Nanisivik. We had Nanisivik in
23 the past in Arctic Bay. Wildlife implication, there
24 were some wildlife implications by the hunters in our
25 community. There were some hunters going out hunting.
26 People who know the land very well, once there's a ship

1 there around, the animals had been going away, but
2 after the mine closes, the animals are slowly coming
3 back. The animals usually come back to its natural
4 habitat very slowly. Those animals will go back to
5 their places after leaving the area in the future. And
6 our children and grandchildren will have jobs, of
7 course, if that project were to go ahead. The animals
8 will leave, but they will return, and so the children,
9 grandchildren can expect to see animals in their time.
10 They will see exactly the same animals that we see
11 today, and I want people to understand this. This
12 happened in our community; the animals have fled the
13 area, but they are now -- hunters say the animals are
14 starting to return to their natural habitat.

15 And I had wanted to explain that to those who are
16 having a hard time dealing with this issue, but I can't
17 wait for an approval. We survive on money these days.
18 Our children, grandchildren, when they start working,
19 they will be supported through monies, and I thank you,
20 and I appreciate that you are trying to get this
21 project up and going, and that's it.

22 MR. COTE: Thank you for the comments.

23 MR. MISSAL: Greg Missal of Baffinland.

24 I guess the only comment I would have on Leah's
25 comment is that we get some very good perspectives when
26 we visit Arctic Bay and have community meetings and

1 listen to the people talking about their experiences
2 with the Nanisivik mine. We hear a lot of good things
3 about the project. We hear about some of the concerns
4 that they had with the project being there. Of course,
5 it was a much different time for mining projects than
6 what it is today in terms of the rules and regulations,
7 and Arctic Bay provides a very good perspective on that
8 for us, so thank you, Leah, for those comments.

9 MR. COTE: Thank you, Baffinland. Back
10 to the floor for questions and comments.

11 MS. OOTAVA: Qujannamiik. I am Regiler
12 Ootava. I grew up in this community. This is my
13 concern: I think life is more important than money.
14 Many of us will be affected, and we know this, not just
15 through our food but through our lives.

16 In the past, back when we first went to school,
17 our communities moved to this community, and then they
18 started trying to live like southerners, I think they
19 were at a loss back then when we were children, and
20 once we matured and could figure out what to do, and we
21 started understanding the southern ways through school,
22 but we do know for sure that Inuit can't turn into
23 Caucasians, and this I know to be true. Our food will
24 always be our food.

25 And it's obvious that if the Nunavut Water Board
26 approves their application, our fish will only be for

1 sport. Like you see on TV, sports fishing, you catch
2 the fish, you hold onto it, and sometimes you even kiss
3 the fish, and then you throw it back out in the ocean.
4 I think this is what will happen to us if you do
5 approve that, the licence, but they're my food, and
6 it's our only healthy food. We don't have farms up
7 here. We do have plant growth, but we only eat them
8 during the spring/summer season, berries and
9 blackberries.

10 That is our life, and we want this to be known
11 that we don't survive just through money. It is
12 starting to happen that people are surviving only
13 through cash, but our lives are more important. My
14 relatives had worked at Nanisivik, couples split up,
15 children abandoned, these happened. And how will you
16 deal with these issues? If you are to think only of
17 money, you're going to destroy our lives. If you're
18 going to treat life that way, then there needs to be a
19 therapist that understands our ways, not just the
20 southern way but in our own language too.

21 In that area is a hunt -- hunt -- narwhal hunting
22 area. We have a cabin there. There used to be lots of
23 seals up there, but lately there have been very few
24 seals, and we're already being affected at your
25 planning stages.

26 That is my only statement. Thank you.

1 MR. COTE: Thank you for those comments.
2 Baffinland?

3 MR. MISSAL: Thank you, Mr. Chair. Greg
4 Missal with Baffinland.

5 Thanks for those comments, Regiler. You raised a
6 lot of important points, and a lot of points that we've
7 heard as we visited many of the communities in the
8 North Baffin. People are concerned about how a project
9 like this may or may not affect their traditional
10 activities. There hasn't been a project like this
11 developed, and so people are curious, and they need
12 to -- they feel the need to try and understand how it
13 could affect them.

14 What we also hear in the communities is we get a
15 lot of people telling us that they're concerned about
16 the youth in their communities, and they're concerned
17 about what the young people are going to do for jobs
18 and for money because they don't spend the time on the
19 land that some of the older generation does or the
20 older hunters do. They're more based in the
21 communities, and they do rely more on cash and on
22 store-bought foods.

23 Quite often, we'll get Elders bringing their
24 grandsons or their granddaughters to meetings and
25 saying, You know, my grandson needs a job, I can't wait
26 for you to get your project up and running because he

1 doesn't hunt, and he needs to have a job. So we do
2 hear both sides of that concern in those questions, and
3 we do take that into consideration.

4 Something that's going on here in Pond Inlet right
5 now is a work-ready program, and some of you might have
6 heard of the work-ready program, but if you haven't,
7 the work-ready program is something that Baffinland
8 have developed to try and inform people about what they
9 need to think about if they're interested in getting
10 involved in training or working at Mary River. We
11 believe that there's a lot of great opportunities for
12 people to work at Mary River, but we also understand
13 that maybe working at Mary River won't be for everyone,
14 but people need to understand what the expectations
15 are, what the work rotations will be like, what they
16 need to think about in terms of pressure on their
17 families, because if the husband goes to work at Mary
18 River, well, that means that his spouse or his wife may
19 be at home with the children, and that might be very
20 difficult for her to deal with that while he's away at
21 work.

22 So the work-ready program is a place for people to
23 talk about those challenges and to come up with
24 strategies for dealing with those kinds of challenges.
25 We do have counsellors and people that we are training,
26 local people that we're training to actually lead these

1 programs. Joanna, who was here a little bit earlier,
2 she's one of the people that are actually training to
3 become one of the counsellors.

4 We've had very good feedback on that program, and
5 I appreciate you bringing that up, Regiler, because
6 it's a good opportunity for us to mention the
7 work-ready program, which we're conducting in all of
8 the North Baffin communities and will keep conducting
9 as the project moves forward as well.

10 The final point that I would add to Regiler's
11 comments was about professional counselling. That's
12 something that we feel we're going to require as well.
13 We will have Inuit Elders who will be at site to act as
14 counsellors or mentors to any of the Inuit workers who
15 are there and want to speak to that Elder. We will
16 have a family assistance program as well, which is a
17 counselling service for people both at the site and in
18 the communities also where they can call people, they
19 can call a counsellor and speak with them. So we are
20 trying to keep all of those things in mind. We realize
21 it will be a change, but we also want to do everything
22 we can to try and make it as easy a transition as
23 possible.

24 So, thank you, Mr. Chair.

25 MR. COTE: Thank you, Baffinland. We're
26 back to the floor for the next question or comment. I

1 see a hand up. We'll go to you afterwards. Go ahead,
2 sir.

3 MR. OOTAVA: I'll speak slowly so I (sic)
4 understand my statements. We had a -- I worked on a
5 ship at Mary River, recall we wore leather mitts, and
6 we offloaded the ship, but we needed mitts every day,
7 new mitts every day, and we would trade -- we would use
8 each other's mitts because they would get too small for
9 our hands.

10 So the Mary River people, the Baffinland approval
11 are talking all nice things, but the actual stuff we
12 did was scary. And we had heard too that when they
13 were starting their studies at Mary River, that
14 mountain is pretty high, and those of us who have gone
15 up there know about this. It has creeks and rivers all
16 over it, and that's probably the situation during
17 drilling.

18 I heard that there was a wolf, dead wolf in one of
19 the creek rivulets, and when that person who had
20 discovered the wolf went to see it again, it was gone,
21 and he thought perhaps the Baffinland people had hidden
22 it. We don't want to talk all negative things because
23 you do want a good job, but we do need to take into
24 consideration other effects on how to deal with this.

25 And Baffinland's telling us other things now.
26 Like, for example, they told us, We're going to go

1 through Steensby Inlet, but then they told us, We're
2 going through Milne Inlet now. And we're trying to
3 bring up good words with strength, but they keep
4 changing things on us and telling things on us, and so
5 we actually do notice people when they don't tell the
6 truth to us, and so perhaps if we're told the same
7 consistent things, then perhaps we would be more
8 supportive of this project.

9 And I do thank you very much for giving me the
10 opportunity to state my case.

11 MR. COTE: Baffinland?

12 MR. MISSAL: Thank you, Mr. Chair. Craig
13 Missal with Baffinland. Thanks, Caleb, for those
14 questions. It sounds like Caleb worked at Mary River
15 during the 2008 bulk sample, which was -- which
16 happened to take out some of the ore for testing.

17 I think the first point that was important that
18 Caleb brought up was he made the comment about some of
19 the work being a little bit scary, and I think that
20 it's a good point because I think it kind of ties into
21 a lot of the things that we're concerned about; the
22 main one being safety. Safety is the absolute most
23 important thing that we want to explain and have all of
24 our employees follow at the mine site. We want every
25 person who goes to work at Mary River to go home safely
26 at the end of their shift, and in order for them to

1 work safely, they have to take proper training, and
2 they have to have the proper orientations at site so
3 that they know how to do the job that they're doing and
4 that they do it as safely as possible. So that will be
5 one of the biggest priorities that we'll have.

6 Now, one of the big differences that will start
7 happening this year and continue on compared to the
8 bulk sample in 2008 was that that bulk sample was a
9 very short-term program by a company at that time,
10 which was still Baffinland, but the company was a very
11 different, very small company. We're now moving into a
12 stage where this mine site's going to start to be
13 developed. It's being developed by global companies
14 which have very high safety expectations and very high
15 standards that we want to achieve at Mary River, so we
16 want to make sure that, you know, someone like Caleb
17 who goes to work at Mary River isn't put into a
18 situation where they think it's scary because they have
19 to have the proper safety training and skills so
20 they're not in that situation.

21 Caleb brought up the comment about the dead wolf
22 at site. That was -- that's a comment we've heard a
23 couple times as well here in Pond Inlet before. We
24 don't have any information on the dead wolf, or we have
25 no records of that or what happened in that situation.

26 Caleb also brought up the changes in plans, and

1 that's something that we've spent a lot of time
2 thinking about and being concerned about because we
3 don't want people in the communities to feel like we
4 are changing our minds or changing our plans, but we
5 also have to deal with reality, and the reality of the
6 world at the moment is that these big mining projects
7 are very difficult to get up and running in today's
8 global economy.

9 Some people might know -- or everyone here might
10 know that, you know, the European economy is in very
11 bad shape at the moment. The development in China,
12 which is what's driving a lot of the resource
13 development in the world is slowing down. So many big
14 mining companies and big projects all around the world
15 are being scaled back; they're being put on hold;
16 they're being cancelled; and we didn't want to be in
17 that situation with Mary River. We wanted to find a
18 way to get this project up and running.

19 It's been 50 years this year since our -- or last
20 year I guess it was since Mary River was discovered.
21 That's a very long time ago. Now, some Inuit probably
22 knew Mary River was there a long time before that, but
23 it's been 50 years since some prospectors actually
24 staked those claims. So that goes to show you how long
25 it's taken for us to get to this stage that we're at
26 here today, and, you know, Erik and Oliver and their

1 team has spent the last five-and-a-half -- about
2 five years getting the environmental approvals for this
3 project. Baffinland spent a lot of time and money
4 getting the project to this stage as well, and we're
5 very close now to being able to starting to develop it.

6 When we changed our plans very early in 2013 to
7 consider the early revenue phase, our president
8 actually got on an airplane and came to Pond Inlet,
9 Igloolik, and Hall Beach and talked to the communities
10 about the change in the plans. That's how important we
11 felt it was to get the information out to the
12 communities as soon as possible. It was really the
13 quickest way we could do it, and it was literally
14 within a week after, you know, we realized we were
15 going to have to change our plans that we conveyed that
16 information to the North Baffin communities.

17 So we spend a lot of time in the communities here.
18 We think we have a good relationship with the
19 communities. As Caleb said, you know, he considers us
20 friends. We've heard that before, and that's something
21 that we want to maintain with the North Baffin
22 communities. So thanks, Caleb, for those points.

23 Thank you Mr. Chair.

24 MR. COTE: Thank you, Baffinland. During
25 this last exchange, I was notified that our current
26 conversation is being broadcasted on the local radio,

1 so it's live, and we thought we'd point that out to
2 everyone here. If you are not comfortable with putting
3 your voice on the record in that form, there is a way
4 to still get your points on the record, so please come
5 and see us if you would prefer to do it that way.
6 Otherwise, we will continue in this fashion, and I will
7 invite to the floor again any comments or questions you
8 may have. Go ahead, sir.

9 MR. KILUKISHAK: I want to make a statement. I
10 had written name down, I think you know it. I'm
11 Gamailie Kilukishak. I will relate a story after I've
12 expressed my concern.

13 First of all, I will state this: In the years
14 past, we've had ships coming in one year -- one ship
15 one year, and all the time, the ship would come back
16 was the next year, and that's how life was in the years
17 we've left behind. It was a supply ship, one supply
18 ship per year.

19 As the ships started increasing that came up to
20 the north, animals' habit started to change as per the
21 increasing numbers of ships coming up to the area, and
22 we knew immediately that there had been oil exploration
23 in our area, not necessarily close to the community,
24 but we know there are hazards and dangers in offshore
25 drilling, and some of them we know are okay to go ahead
26 and drill. And we do know that the animals' habits are

1 changing, but this is my concern.

2 Through our waters when you started planning for
3 that, for the ships to pass through our waters on their
4 way to Milne Inlet, there was no way we would approve
5 that, and we did not want to approve. The community of
6 Pond Inlet did not want to approve that. When
7 Baffinland wanted to go through Steensby Inlet, we
8 approved the project because they said they would now
9 be going through Steensby Inlet. And then we heard
10 that only through summer to Milne Inlet ore
11 transportation will occur. We don't like that. We're
12 not happy about that as community members. I myself
13 even thought if that's going to be the situation, then
14 the Nunavut Water Board should deny Baffinland their
15 licence. That's my thought.

16 And I'll ask about this, after every month, will
17 you get new ones? Thank you. I don't understand what
18 changes they will put in.

19 MR. COTE: Thank you, sir. I'll turn it
20 over to Baffinland.

21 MR. MISSAL: Thank you, Mr. Chair. Greg
22 Missal with Baffinland. Thanks for those comments
23 Gamailie. Gamailie attends most of our meetings here
24 in Pond Inlet each time we're here, so good to hear
25 from him again.

26 You know, Gamailie presents one -- I guess, he

1 presents his opinion on it. We do hear others with the
2 same opinion, but we do hear people supporting the idea
3 of the shipping through Eclipse Sound to Milne Inlet.
4 We meet regularly with the hamlet council here in Pond
5 Inlet. We meet with the hunters and trappers
6 organizations; we meet with business people. There's a
7 lot of interest in this project being developed, and
8 obviously we're going to develop it in the most
9 environmentally responsible way that we can.

10 As I mentioned before, we just spent the last
11 five years going through an environmental assessment
12 phase with the Nunavut Impact Review Board, which, you
13 know, obviously came as a part of the Nunavut Land
14 Claim Agreement to ensure that responsible development
15 occurs in Nunavut when it's been proposed and when it
16 successfully moves through the environmental assessment
17 process.

18 I guess I'd also mention that, you know, we now
19 have a project certificate in hand. Part of the
20 project certificate saw an approval for about 22 to 23
21 ships moving past Pond Inlet into Milne -- past Pond
22 into Milne Inlet starting this summer in 2013, which is
23 something that's already been approved in that project
24 certificate. So lots of work's been done.

25 A lot of -- Baffinland's made a lot of commitments
26 in terms of management plans and monitoring plans to

1 ensure that there's the absolute least effect possible
2 to any of the marine mammals due to shipping, and those
3 are all rules that we will be following as we move to
4 develop the project. So thanks for the opportunity.

5 MR. COTE: Thank you, Baffinland. Just
6 as a note on process, I'm just looking at the time, we
7 had anticipated that there would be a lot of
8 discussion, and we welcome that. We will likely
9 continue for maybe another 10, 15 minutes.

10 I've consulted my Chairman, and we'd be prepared
11 and likely to open this up again tomorrow at 7:00 PM,
12 so if there are more comments and you don't feel like
13 we'll have enough time tonight, tomorrow again in the
14 evening will be another session, so I want to -- it
15 will be here again, so I'll mention that now, and there
16 are more presentations that will be given as well
17 tomorrow.

18 For now, we'll continue, we'll take perhaps two,
19 perhaps three more questions, and then for the many of
20 us who were here since 8:30 this morning, it's been a
21 long day, but we appreciate all this discussion, so
22 we'll open it up to our next question and comment,
23 please.

24 MR. QAMANIQ: Thank you. David Qamaniq.

25 First question under Number 27, key water
26 management features, down at the bottom, it says

1 contingency would be to install water treatment if
2 necessary. When will be -- who will -- when will it
3 be -- when will Baffinland make a decision whether or
4 not if a treatment centre is -- water treatment
5 facility will be installed if necessary? When will
6 Baffinland know if it's necessary or not?

7 That's my first question. Thank you.

8 MR. COTE: Baffinland?

9 MR. CURRAN: Thank you, Mr. Chair. It's
10 Oliver Curran with Baffinland, and thank you for that
11 question. It's a good question.

12 So to put it into context, what we're speaking
13 about here is more of a closure situation where, over a
14 number of years we'll continue to collect information
15 and better understand what the resulting water quality
16 would be from the open pit mine, and this is done in
17 consultation -- this isn't Baffinland's decision. This
18 is a decision that would be made in consultation with
19 Aboriginal Affairs and the Water Board and other
20 agencies, and so if the decision was made that
21 treatment was required, then that would be a
22 contingency.

23 But at this time, from the information we know
24 right now, we don't think that treatment will be
25 required, but it can always be brought in as an option
26 if it was decided that it would -- that it was

1 required.

2 MR. COTE: Thank you. Please, go ahead.

3 MR. QAMANIQ: Thank you, and under 31,
4 discharge location at Milne Port, I mean not only at
5 Milne Port, but I guess there's a sewage treatment
6 plant in Steensby as well, and you talk about oily
7 water treatment plants, and you talk about sewage
8 treatment plants as well. I'm not sure how good these
9 treatment plants are. I never seen them before
10 personally, but I don't know how well they are
11 maintained, and I don't know how well they last, but if
12 the Nunavut Water Board can consider putting -- adding
13 backup treatment plants in case one of the treatment
14 plants is not working because we only get sea lift once
15 a year. I mean, you may be able to fly one up, but I
16 don't know, I wonder if backup treatment plants can be
17 considered by NWB in case their treatment plants fail
18 in the future.

19 And I got some few questions, but I think you
20 wanted to limit to two questions. Thank you.

21 MR. COTE: Thank you for that. As far as
22 the Water Board is concerned, we're here, and we're
23 collecting all that we hear. After that, we process
24 everything, and we come up with something to submit for
25 our Board for its consideration, so we've heard and
26 taken note of your comment. I'll pass it along to

1 Baffinland.

2 MR. MILLARD: Yeah, thank you. This is Jim
3 Millard from Baffinland. Thanks for that question;
4 it's a great question.

5 I've been at site since 2008, and we've been
6 successfully treating our sewage through our sewage
7 treatment plants there and our oily water treatment
8 plants for the last four years, and it's been very --
9 quite effective. Now, we have new plants coming in
10 that are state-of-the-art and even better than what we
11 have right now. So we have -- and these are being
12 designed by a world-class engineering company. They're
13 going to be very, very good.

14 Now, as far as a backup is concerned, there's a
15 couple of points to consider. When we mobilize a
16 treatment plant to the site, we don't just mobilize the
17 treatment plant, but we mobilize a number of parts that
18 will potentially require, in the event that the
19 treatment plant breaks down, it's like a car or a
20 snowmobile in the sense is that it consists of many
21 different parts, and we will stock those parts and
22 components that are likely to break down in a given
23 year so that we have -- we can keep that plant running.

24 In the event that an unforeseen issue happens
25 where we can't treat due to a breakdown or we, for some
26 reason, don't have the part, we will -- we have ponds

1 where we can temporarily pump our sewage to hold. In
2 the meantime, we would do what we can, fly parts up,
3 fly whatever we need, fly the mechanics or the
4 engineers to fix the problem on a timely basis. And in
5 most cases, that would be, I would say, one week at the
6 very most, and we have capacity with these ponds to
7 contain the sewage or the oily water in the meantime.
8 I hope that answers your question.

9 MR. COTE: Thank you, Baffinland. Sir?

10 MR. QAMANIQ: Thank you, and I guess I got
11 some three or four questions, but I can ask them
12 tomorrow morning if I have to. Thank you.

13 MR. COTE: Thank you. For clarification,
14 it will be tomorrow evening. I will announce the
15 details at the end of today's session.

16 MR. QAMANIQ: Okay, I will do that tomorrow
17 evening then.

18 MR. COTE: Thank you.

19 MR. QAMANIQ: Ask the questions that I want
20 to ask --

21 MR. COTE: Thank you.

22 MR. QAMANIQ: -- more, thanks.

23 MR. COTE: We'll perhaps take one more
24 question for the evening.

25 MR. QAMANIQ: Someone else?

26 MR. COTE: Sure. And then I'll announce

1 the plans for tomorrow, and then we'll adjourn for the
2 evening.

3 So do we have one more individual? Yes, sir, the
4 floor is yours.

5 MR. ARREAK: Hi. Malachi Arreak. I am
6 Inuk, and since you have interpreters, I'll be speaking
7 Inuktitut.

8 Just a little quick note about Mary River. NIRB
9 was already here. I spoke about the reason why Inuit
10 selected lands. Now, we're talking about water, which
11 is also another important part of Inuit lands and
12 ownership therein. If you look, the Land Claim Article
13 19 speaks to Inuit-owned lands; Article 21 enter and
14 access; Article 20 speaks to Inuit water rights.

15 Basically when we had started selecting lands, we
16 had thought ownership of the water came with it. As
17 part of our negotiations to get Mary River, we were
18 told water does not form part of our ownership.
19 Initially Inuit didn't have any water rights listed in
20 the agreement, but if you look now at Article 20, it
21 lists out all of the reasons why Inuit consider water
22 one of our most important resources, and there are
23 specific provisions related to the Water Board and
24 especially in cases where there's not agreement between
25 the developer and the owner, and I think it's important
26 that the Water Board hear that this may come to a

1 cause, but I just want to speak about the fact that,
2 historically, when Inuit found out we couldn't own
3 water as part of our owning land, that we had to try to
4 protect our land and our water through other means, and
5 Article 20 highlights a lot of how Inuit tried to
6 protect their lands, and in particular, it's important
7 that Baffinland know that it's not just the land that
8 Inuit are looking at but the water as well. Water is
9 very important not just for life but for food and for
10 all of the food that the animals feed off.

11 So I guess my question was is there -- does the
12 Water Board have a process which is listed out in an
13 agreement where Baffinland and QIA don't come to an
14 agreement, there is a compensation provision in Article
15 20 specific to the Water Board?

16 And I wanted to raise that, and that's it for me.
17 Qujannamiik.

18 MR. COTE: Thank you, sir. Finally we
19 get a question at the Water Board, so we'll take this
20 one. I'll pass it to Teresa.

21 MS. MEADOWS: Thank you, Damien. Thank you,
22 Mr. Chair. Thank you, Malachi, for that question.

23 The short answer is that, yes, we do have a draft
24 process in place for dealing with water user
25 compensation.

26 The longer answer is that we've not been called on

1 as a Board to date in order to embark upon a process of
2 water user compensation determination. It can be
3 triggered, as you said, under the Land Claim under
4 Article 20, it can be triggered by either the Inuit
5 organization, in this case, the Qikiqtani Inuit
6 Association, or it can be triggered by the Applicant
7 for a water licence, in this case, Baffinland Iron
8 Mines Corporation.

9 To date, we've not been requested by either party
10 to engage in a water user compensation determination,
11 but we also do not have, at this point, confirmation
12 that water user compensation has been adequately
13 addressed by the parties, and that is something that we
14 will need confirmation of before the Water Board can
15 consider issuing a licence.

16 MR. COTE: Thank you, Teresa. This I
17 think brings us to a close for today's session. Now,
18 in terms of tomorrow when -- if we're still on the
19 radio, this is to all our friends in the community who
20 might not be here with us today -- the hearing itself
21 will resume tomorrow morning at 9 AM, Mr. Chairman?

22 THE CHAIR: (NO VERBAL RESPONSE)

23 MR. COTE: At 9 AM. It will be the
24 continuation of what unfolded during the day today. In
25 the evening at 7:00 PM, we will continue this meeting.
26 So we will adjourn because it's getting late into the

1 evening, and we will continue this discussion tomorrow
2 at 7:00 PM at the community centre, so same place, same
3 time. There will be more presentations, and then there
4 will be an opportunity to continue with the questions
5 that we're having now.

6 So thank you for your patience. Thank you for
7 coming this evening, and, Mr. Chairman, are we ready to
8 close for the evening?

9 THE CHAIR: Yes, we are.

10 MR. COTE: So the meeting is adjourned
11 for this evening. Thank you for coming. We'll see you
12 in the morning.

13 (WHICH WAS ALL THE EVIDENCE TAKEN AT 10:31 PM)

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1 CERTIFICATE OF TRANSCRIPT:

2
3 I, Karoline Schumann, certify that the foregoing
4 pages are a complete and accurate transcript of the
5 proceedings, taken down by me in shorthand and
6 transcribed from my shorthand notes to the best of my
7 skill and ability.

8 Dated at the City of Calgary, Province of Alberta,
9 this 7th day of May, 2013.

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13 _____
14 Karoline Schumann, CSR(A)
15 Official Court Reporter
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EXHIBITS

APRIL 23, 2013

PAGE NUMBER:

EXHIBIT 1 - Mary River Project Nunavut 63
Water Board Public Hearing PowerPoint
Presentation of Baffinland Iron Mines
Corporation [English].

EXHIBIT 2 - Mary River Project Nunavut 63
Water Board Public Hearing PowerPoint
Presentation of Baffinland Iron Mines
Corporation [Inuktitut].

EXHIBIT 3 - Package of three figures: 77
Figure 5: Milne Inlet Surveillance
Network Program; Figure 6: Steensby Port
Proposed Surveillance Network Program;
and Figure 1: Proposed Surveillance
Network Program.
