



PO Box 32, Wekweètì NT X0E 1W0  
Tel: 867-713-2500 Fax: 867-713-2502

#1-4905 48th Street, Yellowknife NT X1A 3S3  
Tel: 867-765-4592 Fax: 867-765-4593  
[www.wlwb.ca](http://www.wlwb.ca)

April 8, 2022

File: W2020L2-0004

The Honourable Shane Thompson  
Minister of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320  
Yellowknife, NT X1A 2L9

Sent by email

Dear Minister Thompson,

**RE: Recommendation for Approval of Water Licence: Point Lake Project Amendment – Arctic Canadian Diamond Company Ltd., Ekati – Lac de Gras, NT**

The Wek'èezhii Land and Water Board (Board) has completed its regulatory process for Arctic Canadian Diamond Company Ltd.'s Water Licence Amendment Application for the Point Lake Project at the Ekati Mine, Lac de Gras, NT.

As this is a type A Water Licence for which the Board held a public hearing, the Licence requires your approval and signature for issuance as per section 72.13 of the *Mackenzie Valley Resource Management Act* (MVRMA) and as delegated under Schedule A of the Delegation Instrument under the MVRMA. The Board recommends your approval and signature of the amended Water Licence W2020L2-0004.

The Board has also received evidence from the Tłı̨chǫ Government and Arctic Canadian Diamond Company Ltd. as required by Chapter 23.4 of the *Tłı̨chǫ Land Claims and Self-Government Agreement*.<sup>1</sup> This evidence, along with a summary of the associated steps, is attached.

---

<sup>1</sup> See the [Tłı̨chǫ Land Claims and Self-Government Agreement](#).

The Board would like to draw your attention, and that of the Government of the Northwest Territories, to the regulatory uncertainty which affected this proceeding because the MVRMA provisions requiring the issuance of a development certificate were not in place in relation to the Jay Project. This uncertainty added to the complexity and cost of this proceeding beginning with the preliminary screening conducted by the Board, and it carried through to the difficulties experienced by the Licensee and parties, including the GNWT, in determining which conditions should be carried over from the previous version of the licence which was drafted to enable Jay Project construction and operation. Please refer to section 5.14 of the Reasons for Decision for more detail on this issue.

The Board respectfully suggests that it is important for the development certificates provisions of the MVRMA to be in place for future proceedings. The continuation of this regulatory gap risks that future complication of the permitting and licensing process will make project planning difficult for Arctic, and contribute to ongoing regulatory uncertainty for governments, the Board, Indigenous Government Organizations, and other Intervenor and the public.

The Board looks forward to receiving your response on or before May 23, 2022.

Yours sincerely,



Mason Mantla  
Chair, Wek'èezhìi Land and Water Board

BCC'd to: Ekati Distribution List  
Sheila Chernys, Head of Health, Safety, Security, Environment and Communities, Arctic  
John MacDonald, Assistant Deputy Minister, GNWT-ENR

Attached: Water Licence W2020L2-0004  
Reasons for Decision  
Evidence related to Chapter 23.4 of the *Tijchq Land Claims and Self-Government Agreement*



PO Box 32, Wekweètì NT X0E 1W0  
 Tel: 867-713-2500 Fax: 867-713-2502

#1-4905 48th Street, Yellowknife NT X1A 3S3  
 Tel: 867-765-4592 Fax: 867-765-4593  
[www.wlwb.ca](http://www.wlwb.ca)

### Reasons for Decision

Issued pursuant to paragraph 40(2)(c) of the Mackenzie Valley Land Use Regulations (MVLUR) and section 72.25 of the *Mackenzie Valley Resource Management Act* (MVRMA) and sections 36 and 54 of the *Waters Act*.

<b>Water Licence Amendment and Land Use Permit Applications</b>	
<b>File Number</b>	W2020L2-0004 and W2021D0005
<b>Company</b>	Arctic Canadian Diamond Company Ltd.
<b>Project</b>	Point Lake
<b>Location</b>	Ekati Diamond Mine, Lac de Gras, NT
<b>Activity</b>	Mining and Milling/Mining
<b>Date of Decision</b>	March 29, 2022

## Table of Contents

<b>1.0</b>	<b>List of Defined Terms and Acronyms</b>	<b>5</b>
<b>2.0</b>	<b>Summary of Applications</b>	<b>6</b>
<b>3.0</b>	<b>Main Issues Raised During the Regulatory Proceeding</b>	<b>6</b>
<b>4.0</b>	<b>Regulatory Process</b>	<b>7</b>
<b>5.0</b>	<b>Legislative Requirements Related to Licence and Permit Issuance</b>	<b>10</b>
5.1	Consultation, Engagement, and Public Notice	10
5.2	Major Mining Project in Mqwhì Gogha Dè Njttèè	11
5.3	Eligibility for Land Use Permit	12
5.4	Land Use Plan Conformity	12
5.5	Land Use Fees	13
5.6	Water Use Fees	13
5.7	Existing Licences	13
5.8	Compensation to Existing Water Users	13
5.9	Water Quality Standards	14
5.10	Effluent Quality Standards	14
5.11	Financial Responsibility	14
5.12	Minimization of Adverse Effects	15
5.13	Time Limit	15
5.14	Environmental Review (Part 5 of the MVRMA)	16
5.14.1	Preliminary Screening	16
5.14.2	The Jay Project	16
5.15	Removal of other Licence Conditions	19
<b>6.0</b>	<b>Decision – Water Licence W2020L2-0004</b>	<b>19</b>
6.1	Part A: Scope and Defined Terms	20
6.1.1	Scope	20
6.1.2	Defined Terms	21
6.2	Part B: General Conditions and Schedule 1	22
6.3	Part C: Conditions Applying to Security Requirements and Schedule 2	23
6.4	Part D: Conditions Applying to Water Use	26
6.5	Part E: Conditions Applying to Dewatering and Schedule 4	27
6.5.1	Comments related to Dewatering Plan approval	27
6.5.2	Comments related to monitoring	28
6.5.3	Comments related to caribou habitat	29
6.6	Part F: Conditions Applying to Construction and Schedule 5	30
6.7	Part G: Conditions Applying to Modifications	35
6.8	Part H: Conditions Applying to Waste Disposal and Schedule 6	35
6.9	Part I: Conditions Applying to Contingency Planning	45
6.10	Part J: Conditions Applying to Aquatic Effects Monitoring and Schedule 8	46
6.11	Part K: Conditions Applying to Closure and Reclamation and Schedule 9	48
6.12	Annex B: Surveillance Network Program	55
6.13	Annex C: Table of Revision History	56
6.14	Jay Conditions	56

<b>7.0</b>	<b>Decision – Land Use Permit W2021D0005</b> .....	<b>57</b>
7.1	Term of Permit .....	57
7.2	Part A: Scope of Permit .....	57
7.3	Part B: Definitions .....	58
7.4	Part C: Conditions Applying to All Activities .....	59
	26(1)(a) Location and Area .....	59
	26(1)(b) Time .....	59
	26(1)(c) Type and Size of Equipment.....	59
	26(1)(d) Methods and Techniques .....	59
	26(1)(e) Type, Location, Operation of All Facilities .....	59
	26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land.....	59
	26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material .....	59
	26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage .....	59
	26(1)(j) Protection of Historical, Archaeological, and Burial Sites.....	60
	26(1)(l) Security Deposit .....	60
	26(1)(m) Fuel Storage .....	60
	26(1)(n) Methods and Techniques for Debris and Brush Disposal.....	60
	26(1)(o) Restoration of the Lands.....	61
	26(1)(p) Display of Permits and Permit Numbers .....	61
	26(1)(q) Biological and Physical Protection of the Land.....	61
	7.4.2 Conditions related to 26(1)(h) Wildlife and Fish Habitat .....	62
	26(1)(h) Wildlife and Fish Habitat.....	62
7.5	Annex A: Table of Submissions .....	67
7.6	Annex B: Table of Revision History .....	67
<b>8.0</b>	<b>Conclusion</b> .....	<b>67</b>

On March 29, 2022, the Wek'èezhìi Land and Water Board (WLWB or Board) met and considered the Applications made by Arctic Canadian Diamond Company Ltd. (Arctic) (the Applicant) to the Board on May 31, 2021 for an Amendment to Water Licence (Licence) W2020L2-0004 and for Land Use Permit (Permit) W2021D0005 for the use of water and the deposit of waste for the Point Lake Project (the Project) at the Ekati Diamond Mine. After reviewing the Applications and the evidence gathered during the regulatory proceeding, the Board has made the following decisions:

- 1) To amend Water Licence W2020L2-0004 for inclusion of the Point Lake development;
- 2) To remove conditions and definitions from Water Licence W2020L2-0004 that specifically apply to the Jay Project;
- 3) To issue Land Use Permit W2021D0005 for a term of 5 years;
- 4) To approve Version 2.2 of the Point Lake Dewatering Plan;
- 5) To approve Version 15 of the Spill Contingency Plan;
- 6) To approve Version 8 of the Waste Management Plan;
- 7) To require revisions to Version 2.2 of the Point Lake Dewatering Plan, which the Applicant must submit as Version 3.0 of the Plan within 15 days of the issuance date of the Licence Amendment for Board approval;
- 8) To require revisions to Version 15.0 of the Spill Contingency Plan, which the Applicant must submit as Version 15.1 of the Plan within 60 days of the issuance date of the Licence Amendment and Permit for a conformity confirmation;
- 9) To require revisions to Version 8.0 of the Waste Management Plan, which the Applicant must submit as Version 8.1 of the Plan within 60 days of the issuance date of the Licence Amendment and Permit; and
- 10) To require revisions to AEMP Design Plan Version 7.1, which the Applicant must submit within six months of the issuance date of the Licence Amendment, for Board approval.

These Reasons for Decision set out the Board's regulatory process for the Applications and rationale for decisions regarding the Licence and Permit. A summary of the Applications and the main issues identified during the proceeding are provided in sections [2.0](#) and [3.0](#) below, followed by an outline of the regulatory process for the Applications in [section 4.0](#). [Section 5.0](#) describes how the applicable legislative requirements have been met. The Board's decisions and supporting rationale are set out in [section 6.0](#) for the Licence and [section 7.0](#) for the Permit.

## 1.0 List of Defined Terms and Acronyms

Applicant/Licensee/ Permittee	Arctic Canadian Diamond Company Ltd.
Applications	The complete application package submitted by the Applicant for Water Licence Amendment W2020L2-0004 and Land Use Permit W2021D0005.
CanNor	Canadian Northern Economic Development Agency
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CRP	Closure and Reclamation Plan
DFO	Department of Fisheries and Oceans
DIAND	Department of Indigenous Affairs and Northern Development
Distribution List	The list of individuals and organizations to whom materials from the regulatory proceeding were circulated.
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada
Ekwò	Tł̥chq̣ word meaning caribou
GLWB or Board	Gwich'in Land and Water Board
GNWT	Government of the Northwest Territories
GNWT-ENR	Government of the Northwest Territories – Environment and Natural Resources
IR	Information Request
Inspector	An Inspector designated under subsection 65(1) of the <a href="#">Waters Act</a> or An Inspector designated under subsection 84(1) of the <a href="#">Mackenzie Valley Resource Management Act</a>
Intervener	As per the MVLWB <a href="#">Rules of Procedures</a> , any person or organization that has submitted an intervention in the public hearing phase of the regulatory proceeding, as outlined in the Rules.
Licence	Water Licence W2020L2-0004
LWBs	Land and Water Boards of the Mackenzie Valley
MVLUR	<a href="#">Mackenzie Valley Land Use Regulations</a>
MVLWB or Board	Mackenzie Valley Land and Water Board
MVRMA	<a href="#">Mackenzie Valley Resource Management Act</a>
Minister	Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources or Minister of the Government of the Northwest Territories (GNWT) – Lands
ORS	Online Review System ( <a href="https://new.onlinereviewssystem.ca/reviews">https://new.onlinereviewssystem.ca/reviews</a> )
Party	As per the MVLWB <a href="#">Rules of Procedures</a> , an applicant, a person, or an organization participating in this regulatory process.
Permit	Land Use Permit W2021D0005
Project	Point Lake Development, the undertaking as described in Part A of the Licence and Part A of the Permit.
Review Board	Mackenzie Valley Environmental Impact Review Board

SCP	Spill Contingency Plan
SLWB or Board	Sahtu Land and Water Board
Standard Licence Conditions	MVLWB <a href="#">Standard Water Licence Conditions Template</a>
Standard Permit Conditions	MVLWB <a href="#">Standard Land Use Permit Conditions Template</a>
Tataà	Tłıchq word meaning “land in midst of water”
TG	Tłıchq Government
WLWB or Board	Wek’èezhii Land and Water Board
WMP	Waste Management Plan

## 2.0 Summary of Applications

On May 31, 2021, the Applicant submitted applications to amend Licence W2020L2-0004 and for a new Permit W2021D0005 (the Applications).<sup>1,2</sup> The Applications are to conduct dewatering, pit development, and associated activities for the open pit mining of Point Lake. These activities are located within a non-federal area of the Wek’èezhii Resource Management Area. There is currently an Early Works Land Use Permit W2021X0004 in place for activities in this area. A Type A Permit is required due to the application of permitting criteria sections 4(a)(i) through (v) of the Mackenzie Valley Land Use Regulations.

In making its decision and preparing these Reasons for Decision, the Board has reviewed and considered:

- 1) The Applications as submitted by the Applicant for the Project;
- 2) The evidence and submissions received by the Board from the Applicant in relation to the Licence Amendment and Permit; and
- 3) The comments and recommendations, evidence, and submissions received by the Board from Parties during the regulatory proceeding.

## 3.0 Main Issues Raised During the Regulatory Proceeding

These Reasons for Decision focus primarily on the following key issues raised during the regulatory proceeding:

- 1) Sections 5.14 and 6.14 – Removal of Jay Project-related conditions and definitions;
- 2) Section 6.4 – Potential need for flow augmentation into Connor Lake for supporting fish populations;
- 3) Section 6.5 – Point Lake Dewatering Plan;
- 4) Section 6.6.1 – Point Lake WRSA(s) and Overburden Pile Design Plan
- 5) Section 6.8.1 – Effluent Quality Criteria;
- 6) Section 6.8.2 – Humidity Cell Testing;
- 7) Section 6.10 – AEMP Design Plan;

<sup>1</sup> See WLWB Online Registry ([www.wlwb.ca/](http://www.wlwb.ca/)) for [W2012L2-0001 – Ekati – Point Lake – Amendment Application – May 31 21](#)

<sup>2</sup> See WLWB Online Registry for [Ekati – Point lake – Permit Application – May 31 21](#)



- 8) Section 6.11.1 – Use of Overburden; and
- 9) Section 7.4.2 – Conditions related to 26(1)(h) Wildlife and Fish Habitat.

Issues that were resolved by Parties to the Board’s satisfaction during the proceeding are not addressed in detail in these Reasons.

#### **4.0 Regulatory Process**

On May 31, 2021, the Applicant submitted the Applications for a Licence amendment W2020L2-0004 and new Permit W2021D0005. On June 10, 2021, the Applications were deemed complete and circulated to the Distribution List for public review on the Online Review System (ORS).<sup>3</sup> As part of the public review, Board staff requested comments and recommendations to assist with the Board’s preliminary screening determination.

On June 10, 2021, Board staff distributed a draft work plan for public review.<sup>4</sup> This included scheduling a public hearing as per paragraph 41(2)(b) of the [Waters Act](#). Comments on the draft work plan were received by June 24, 2021 from: Independent Environment Monitoring Agency (IEMA), Government of Northwest Territories – Environment and Natural Resources (GNWT-ENR), and the Tłı̄chǫ Government (TG) and the Applicant<sup>5</sup>. Board staff subsequently circulated a revised work plan to the Distribution List on June 29, 2021.<sup>6</sup> Revised work plans were again circulated to the Distribution List on September 20, 2021 and December 6, 2021.<sup>7,8</sup>

On June 10, 2021, the Board decided there were clear linkages between the applications for the new Permit W2021D0005 and Licence Amendment for W2020L2-0004, and hold a public hearing for the Permit Application, pursuant to paragraph 22(2)(b) of the [MVLUR](#).<sup>9</sup>

Public notices of the Applications were published in *News North* during the week of June 21, 2021, to fulfill paragraph 43(1)(a) of the [Waters Act](#).<sup>10</sup>

By July 15, 2021, the Board received comments and recommendations regarding the Applications from the following Parties: Deninu Kų́ First Nation (DKFN), Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), Government of Northwest Territories – Land - Inspector (GNWT-

---

<sup>3</sup> See WLWB Online Review System for [W2012L2-0001 – Ekati – Point Lake – Amendment – Review Summary and Attachments – Jul 29 21](#)

<sup>4</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Amendment – Draft Work Plan – Jun 10 21](#)

<sup>5</sup> See WLWB Online Registry for W2012L2-0001 – Ekati – Point Lake – Work Plan Comments – Jun 24\_21: [GNWT-ENR](#); [IEMA](#); [TG](#); [Arctic](#)

<sup>6</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Amendment – Work Plan – Jun 29 21](#)

<sup>7</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Work Plan – Version 3.0 – Sep 20 21](#)

<sup>8</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Work Plan – Version 4.0 – Dec 06 21](#)

<sup>9</sup> See WLWB Online Registry for [Ekati – Point Lake - Decision Letter – Notification of Timeline Pause – Jun 10 21](#).

<sup>10</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Notice of Application – Jun 21 21](#)

Lands-Inspector), Government of Northwest Territories – Lands (GNWT-Lands), Independent Environmental Monitoring Agency (IEMA), North Slave Métis Alliance (NSMA), Tłı̄chǫ Government (TG), and Wek'èezhii Renewable Resources Board (WRRB). On July 29, 2021, the Applicant responded to the Parties' comments and recommendations.<sup>11</sup>

On August 24, 2021, the Board met and made its preliminary screening determination for the Project.<sup>12</sup>

On September 7-9, 2021, Board staff hosted a technical workshop to discuss and seek clarity on issues raised by Parties and Board staff, and to provide an opportunity to discuss the Applications in advance of Parties submitting interventions to the Board. Attendees included: TG, FRMG, NSMA, DKFN, GNWT, IEMA, ECCC, WRRB, DDMI, DFO, and the Applicant. Information Requests resulting from the workshop were circulated on September 10, 2021. The Applicant, ECCC, GNWT, and IEMA submitted IR responses.<sup>13</sup>

The pre-hearing conference was held virtually on October 18, 2021 to discuss the potential content of the public hearing, written interventions and presentations, notices of intent to appear at the hearing, and to briefly outline the MVLWB [Rules of Procedures](#).<sup>14</sup> Representatives from TG, FRMG, NSMA, DKFN, LKDFN, the Applicant, DFO, GNWT, ECCC, and IEMA participated in the pre-hearing conference.

By October 28, 2021, written interventions were received from TG, FRMG, NSMA, DKFN, LKDFN, DFO, ECCC, and IEMA.<sup>15</sup> The GNWT provided an Intervention by November 1, 2021.<sup>16,17</sup> The Applicant responded to written interventions on November 12, 2021.<sup>18</sup>

On November 15, 2021, Board staff circulated the public hearing agenda.<sup>19</sup>

---

<sup>11</sup> See WLWB Online Review System for [W2012L2-0001 – Ekati – Point Lake – Amendment – Review Summary and Attachments – Jul 29 21](#)

<sup>12</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Preliminary Screening Determination and Reasons for Decision – Aug 24 21](#)

<sup>13</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Technical Workshop Information Responses](#)

<sup>14</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Pre-Hearing Conference Agenda – Oct 14 21](#)

<sup>15</sup> See WLWB Online Registry for Ekati – Point Lake Project - Interventions – Oct 28\_21: [DFO](#), [DKFN](#), [ECCC](#), [FRMG](#), [IEMA](#), [LKDFN](#), [NSMA](#), and [TG](#).

<sup>16</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Request for Intervention Deadline Revision – Oct 21 21](#)

<sup>17</sup> See WLWB Online Registry for [Ekati – Point Lake Project – GNWT Intervention – Nov 1 21](#)

<sup>18</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Arctic Response to Interventions – Nov 12 21](#)

<sup>19</sup> See WLWB Online Registry for [Ekati – Point Lake Project - Public Hearing - Agenda – Nov 15 21](#).

On November 15, 2021, public hearing presentations were received from DFO, DKFN, ECCC, FRMG, GNWT, IEMA, LKDFN, NSMA, and TG.<sup>20</sup> The Applicant submitted a public hearing presentation on November 17, 2021.<sup>21</sup>

The public hearing was held on November 23-26, 2021, in Yellowknife, NT, at the Chateau Nova. Translation services were provided, and the hearing was recorded and transcribed.<sup>22</sup> Participants included: TG, FRMG, LKDFN, NSMA, DKFN, IEMA, DFO, ECCC, GNWT, and the Applicant. Undertakings generated from the hearing were recorded and circulated to the Distribution List on November 26, 2021.<sup>23</sup> There were nine undertakings: #1 to 4 were directed to the Applicant, #2 was directed to all Parties, #4 was directed to LKDFN, and #6 to 9 were directed to GNWT. The Applicant responded to the undertakings on December 2, 2021. GNWT, LKDFN, TG, IEMA, NSMA, and DKFN submitted responses on December 3, 2021.<sup>24</sup>

Version 2.1 of the Point Lake Dewatering Plan was submitted as an Undertaking for the Public Hearing and was distributed for review on December 6, 2021. By January 11, 2021, the Board received comments and recommendations regarding the Plan from the following Parties: ECCC, DKFN, WRRB, IEMA, GNWT-ENR, and DFO. On January 7, 2022, the Applicant responded to the Parties' comments and recommendations.<sup>25</sup>

On December 14, 2021, Board staff circulated a draft Licence and Permit for review to allow all Parties the opportunity to comment on potential conditions and consider the draft conditions in preparing their closing arguments in order to assist the Board in making its decision on the Licence and Permit. The following Parties responded by January 13, 2022: ECCC, WRRB, DKFN, GNWT-Lands Inspector, DFO, FRMG, GNWT-Lands, GNWT-ENR, IEMA, and TG. Board staff also submitted a question. The Applicant responded to all the Parties' comments and provided comments of their own on January 25, 2022.<sup>26</sup>

---

<sup>20</sup> See WLWB Online Registry for [Ekati Point Lake Project – Amendment Application – DFO Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – DKFN Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – ECCC Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – FRMG Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – GNWT Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – IEMA Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – LKDFN Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – NSMA Public Hearing Presentation – Nov 15 21](#); [Ekati Point Lake Project – Amendment Application – TG Public Hearing Presentation – Nov 15 21](#).

<sup>21</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – Arctic Public Hearing Presentation – Nov 17 21](#).

<sup>22</sup> See WLWB Online Registry for Ekati – Point Lake Project – Amendment Application - Public Hearing Transcripts: [Day 1](#); [Day 2](#); [Day 3](#); [Day 4](#)

<sup>23</sup> See WLWB Online Registry for [Ekati – Point Lake Project - Public Hearing Undertakings – Nov 26 21](#).

<sup>24</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Responses to Undertakings – Dec 5 21](#).

<sup>25</sup> See WLWB Online Review System for [Ekati – Point Lake Project – Dewatering Plan V 2.1 Review Summary](#)

<sup>26</sup> See WLWB Online Review System for [Ekati – Point Lake Draft Water Licence and Draft Permit Review Summary](#)

By February 9, 2022, TG, LKDFN, DKFN, ECCC, GNWT-ENR, and IEMA submitted written closing arguments to the Board.<sup>27</sup> FRMG submitted written closing arguments to the Board on February 22, 2022.<sup>28,29</sup> The Applicant submitted closing arguments on February 15, 2022, and confirmed it had no updates to closing arguments based on FRMG's submission on February 22, 2022.<sup>30,31</sup> Parties and the Applicant had an opportunity, in their closing arguments, to update their position on issues raised during the regulatory proceeding, and to summarize their final recommendations to the Board.

On March 29, 2022, the Board met to make decisions regarding the Applications. These decisions and related reasons are described in sections [5.0](#), [6.0](#), and [7.0](#) below.

## **5.0 Legislative Requirements Related to Licence and Permit Issuance**

This Project is subject to the [MVRMA](#), the [Waters Act](#), and the [Waters Regulations](#) with respect to licensing, because it is located in a non-federal area. With respect to permitting, the [MVRMA](#) and the [MVLUR](#) apply.

As per the [Waters Regulations](#) and the [MVLUR](#), the proposed use of land and water, and the deposit of waste for this Project require a licence and a permit. Accordingly, the Board has jurisdiction to issue the Licence and Permit as per section 102 and subsections 59(1) and 60(1.1) of the [MVRMA](#).

In conducting its regulatory process for the Applications (as described in sections [3.0](#) and [4.0](#) above), the Board has ensured that all applicable legislative requirements have been satisfied as outlined in the subsections below. The Board has considered the people and users of the land and water in the Mackenzie Valley, and any Traditional Knowledge and scientific information that was made available to the Board during the regulatory proceeding, as per section 60.1 of the [MVRMA](#). The consideration of information provided to the Board is discussed in detail below and in sections [6.0](#) and [7.0](#).

### **5.1 Consultation, Engagement, and Public Notice**

In exercising its authority under the [MVRMA](#), the Board must consider the importance of conservation to the well-being and way of life of Indigenous peoples of Canada, as per paragraph 60.1(a) of the [MVRMA](#), specifically those to whom section 35 of the *Constitution Act, 1982*, applies and who use an area of the Mackenzie Valley. Accordingly, the Board works with applicants, affected parties (including Indigenous governments and organizations), and other parties (such as other boards and regulators) to ensure that

---

<sup>27</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – DKFN Closing Arguments – Feb 7 22](#); [Ekati – Point Lake Project – Amendment Application – LKDFN Closing Arguments – Feb 1 22](#); [Ekati – Point Lake Project – Amendment Application – TG Closing Arguments – Feb 8 22](#); [Ekati – Point Lake Project – Amendment Application – IEMA Closing Arguments – Feb 8 22](#); [Ekati – Point Lake Project – Amendment Application – ECCC Closing Arguments – Feb 8 22](#); [Ekati – Point Lake Project – Amendment Application – GNWT-ENR Closing Arguments – Feb 2 22](#)

<sup>28</sup> [Ekati – Point Lake Project – Closing Arguments – FRMG Extension Request – Feb 4 22](#);

<sup>29</sup> [Ekati – Point Lake Project – Amendment Application – FRMG Closing Arguments – Feb 22](#)

<sup>30</sup> [Ekati – Point Lake Project – Amendment Application – Arctic Closing Arguments – Feb 15 22](#)

<sup>31</sup> [Ekati – Point Lake Project – Arctic Closing Arguments Complete Confirmation – Feb 23 22](#)

potential impacts of proposed projects, including impacts on rights under section 35, are understood and carefully considered before decisions are made with respect to the issuance of permits and licences.

The Board's requirements for engagement are set out in the MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). The Policy and Guidelines were developed to ensure that the Board's obligations for achieving meaningful consultation (as set out by land claims and applicable legislation) with all affected parties, including Indigenous groups in the Mackenzie Valley, are met and engagement and consultation results clearly articulated. The Applicant's Pre-application Engagement Record indicated it initiated engagement with Parties on February 24, 2021 and continued until May 20, 2021. In accordance with the Policy and Guidelines, the Applicant's engagement efforts and proposed procedures are detailed in the Engagement Record submitted with the Applications.<sup>32</sup> The Applicant referred to the approved site-wide Engagement Plan, Version 4.1, with respect to the Applications. Following issuance, the Applicant must continue engagement efforts as outlined in the approved Engagement Plan, and as required in the Licence and Permit.

The Applications were posted to the Board's Public Registry and distributed through the ORS. As the Project is located in the Wek'èezhii Resource Management Area: the appropriate organizations, governments, First Nations, and Indigenous organizations were included in the Distribution List.<sup>33</sup> The Distribution List was used throughout this proceeding to circulate submissions, information, and updates relevant to the proceeding; the List was periodically updated, and (when requested) individuals with specific interests in the Project were added. More information about the proceeding for the Applications is provided above in [section 4.0](#).

In accordance with sections 63 and 64 of the [MVRMA](#), the Board is satisfied that notice of and access to copies of the Applications was provided, and that a reasonable amount of time was given to communities, First Nations, and the public to participate in this proceeding and make submissions to the Board.

## 5.2 Major Mining Project in Mqwhì Gogha Dè Njttlèè

As defined in Chapter 23 of the *Tłjchq Land Claims and Self-Government Agreement*,<sup>34</sup> the Project is a major mining project in Mqwhì Gogha Dè Njttlèè. As required by policy direction to the Land and Water Boards (LWBs) from the Minister of Indian and Northern Affairs regarding this Chapter,<sup>35</sup> on June 10, 2021, the Board sent the Applicant and the Tłjchq Government a letter notifying them of the additional evidence required before the Minister can approve a type A licence, or a type B licence for which a public hearing

---

<sup>32</sup> See WLWB Online Registry for [Ekati – Point Lake – Project Description – May 31 21](#); Appendix G: Pre-Application Engagement Record.

<sup>33</sup> To access the Distribution List, use the hyperlink in the Review Comment Summary Table: See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Amendment – Review Summary and Attachments – Jul 29 21](#)

<sup>34</sup> See Chapter 23 of the *Tłjchq Land Claims and Self-Government Agreement*.

<sup>35</sup> See WLWB Policy Directions from the Minister webpage to access the [Policy Direction of the Minister of Indian Affairs and Northern Development regarding Chapter 23.4 of the Tłjchq Land Claims and Self-Government Agreement](#).

is held, for this type of project.<sup>36</sup> The Board received communications from the Applicant and Tłı̄chǫ Government on June 17, August 9, August 11, and October 28, 2021 regarding the negotiation process.<sup>37</sup> By November 19, 2021, the Board received the additional information required from the Applicant and the Tłı̄chǫ Government<sup>38</sup>, indicating that a binding term sheet had been concluded. The Board forwarded this information to the Minister for review with these Reasons for Decision and the Board's recommendation regarding the Licence.

### 5.3 Eligibility for Land Use Permit

As per section 18 of the [MVLUR](#), eligibility must be determined before the Board can issue a permit. The Applicant provided Crown Mineral Leases and Prospector's Licence #N34704 to demonstrate eligibility under subparagraph 18(a)(i) of the MVLUR. Based on the information provided the Board has determined that eligibility requirements under section 18 of the MVLUR have been satisfied.

During review of Information Request Responses, TG asked GNWT to confirm if an application for a land lease for Point Lake Project had been submitted, and for GNWT to provide details on what the consultation process looks like for the application (TG comment 13). The GNWT responded that as of October 13, 2021 the Department had not received a surface lease application for the Point Lake Project and provided consultation process details to Arctic.<sup>39</sup> On January 31, 2022, the Board was provided notification of consultation from the GNWT on a surface lease application from Arctic for Point Lake.<sup>40</sup> The Board notes that it has not received confirmation on the issuing of a surface lease. The Board notes that as per Part A, Condition 3 of the Permit, compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, Tłı̄chǫ, or Municipal laws. As far as the Board is concerned, eligibility has been met. The Board notes that GNWT has stated Arctic will have to have a surface lease in place prior to commencement of related activities to meet the GNWT's requirements.

### 5.4 Land Use Plan Conformity

As per section 61 of the [MVRMA](#), where an approved Land Use Plan applies, the Board must confirm conformity with the Land Use Plan before issuing a permit or licence. No approved Land Use Plans apply in the Project area.

---

<sup>36</sup> See WLWB Online Registry for [W2012L2-0001 - Ekati - Point Lake - Notice of Application for a Major Mining Project in Mowhi Gogha Dè Njttèè - Jun 10 21.pdf](#)

<sup>37</sup> See WLWB Online Registry for [W2012L2-0001 - Ekati - Point Lake - Notice of Application for a Major Mining Project - Proponent Correspondence - Jun 17 21.pdf](#); [W2012L2-0001 - Ekati - Point Lake - Notice of Application for a Major Mining Project - TG Letter to WLWB - Aug 9 21.pdf](#); [W2012L2-0001 - Ekati - Point Lake - Notice of Application for a Major Mining Project - Arctic Letter to WLWB - Aug 11 21.pdf](#); [Ekati – Point Lake – Notice of Application for a Major Mining Project – Arctic-TG Letter – Oct 28 21](#)

<sup>38</sup> See WLWB Online Registry for [Ekati – Point Lake Project – TG letter to WLWB – Update to Ongoing Negotiations Between TG and Arctic – Nov 22 21](#).

<sup>39</sup> See WLWB Online Registry for [Ekati – Point Lake Project – IR Response Review – GNWT Response to TG Comment – Oct 13 21](#)

<sup>40</sup> See WLWB Online Registry for [Ekati – Point Lake – GNWT Notice of Consultation on Surface Lease Application – Jan 31 21](#)  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 12 of 68

## 5.5 Land Use Fees

The Project is located wholly outside of federal areas, so no land-use fees apply.

## 5.6 Water Use Fees

The Applicant applied to use 7.8 Mm<sup>3</sup> for 2022 of water for the Dewatering of Point Lake, and the Board has authorized a maximum water use volume of 7.8 Mm<sup>3</sup> for 2022 for this activity, as indicated on the Licence cover page and set out in Part D of the Licence. As per subsection 8(1) of the [Waters Regulations](#), annual water use fees must be paid in advance of each year's water use. The Board considered the MVLWB [Water Use Fee Policy](#) and used the [Water Use Fee Calculator](#) to determine the annual amount of water use fees for the Licence is \$145,050.00

The Applicant included \$145,050.00 for water use fees with the Licence Application.<sup>41</sup> The Board is satisfied that the Applicant has submitted sufficient fees for the first year of water use.

For the duration of the Licence, annual water use fees must be paid each year on or before the date specified in the Licence conditions.

## 5.7 Existing Licences

During the time period established in the Notice of Applications, no licensees or applicants contacted the Board to identify potential effects from the Project on other projects, and there are no other applicants with precedence. Accordingly, with respect to paragraph 26(5)(a) of the [Waters Act](#), the Board is satisfied that issuing the Licence to the Applicant will not adversely affect, in any significant way, any existing licensee or any other applicant, provided the Applicant complies with the conditions of the Licence.

## 5.8 Compensation to Existing Water Users

Paragraph 26(5)(b) of the [Waters Act](#) prohibits the issuance of the Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to persons who would be adversely affected by the use of waters, or deposit of waste proposed by the Applicant, at the time when the Applicant filed the Licence Application with the Board.

The Board received no claims for compensation either during the time period established in the Notice of Applications, or afterwards. Provided the Applicant complies with the Licence conditions, the Board is satisfied there are no water users or persons listed in paragraph 26(5)(b) of the [Waters Act](#) who will be adversely affected by the proposed use of waters or the deposit of waste.

---

<sup>41</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Amendment – Water Use Fees – Jun 9 21](#)  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 13 of 68

## 5.9 Water Quality Standards

With regards to subparagraph 26(5)(c)(i) of the [Waters Act](#), no water quality standards have been prescribed in the [Waters Regulations](#); however, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence, and the primary objective of the Policy is “protection of water quality in the receiving environment. In accordance with the Policy and this objective, the Board has set out conditions in the Licence regarding water and waste management, and management plan requirements. The Board is satisfied that the conditions set out in the Licence are consistent with the Policy and compliance with these conditions will ensure that waste will be collected and disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and detailed rationale are described in [section 6.9](#).

## 5.10 Effluent Quality Standards

With regards to subparagraph 26(5)(c)(ii) of the [Waters Act](#), no effluent quality standards have been prescribed in the [Waters Regulations](#); however, as noted in section 5.9 above, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence. In the absence of prescribed standards, the Policy sets out when and how the Board will include Effluent Quality Criteria (EQC) in a licence to protect water quality in the receiving environment, and Appendix 2 of the MVLWB/GNWT [Guidelines for Mixing Zones](#) describes the general principles and standard process the Land and Water Boards (LWBs) will apply in setting EQC for a project. At this time, the Board has not amended EQC for the Project based on the evidence gathered during the proceeding. Minewater from the Point Lake Project is to be discharged through the King Pond Settling Facility (KPSF). As outlined in section 6.8.1, the Board has set conditions requiring Arctic to demonstrate that EQC for the KPSF are sufficiently protective of the environment after addition of Point Lake Project minewater and prior to discharge of the combined effluent. Accordingly, the Board is satisfied that compliance with these criteria and associated conditions will ensure that effluent from the Project is disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and criteria, and detailed rationale, are further discussed below in Section 6.8.

## 5.11 Financial Responsibility

Under paragraph 26(5)(d) of the [Waters Act](#), before the Board can issue the Licence, it must be satisfied that the Applicant’s financial responsibility is adequate to complete the Project, including any required mitigation measures, and the closure and reclamation of the site.

During the Assignment of authorizations for the Ekati Mine from Dominion Diamond Mines ULC to Arctic Canadian Diamond Company Ltd., the Board evaluated the proof that the financial responsibility of Arctic was adequate and has decided this is adequate going forward with the Point Lake Project.<sup>42</sup> Arctic indicated in its Licence Amendment Application that it had demonstrated financial capacity through the

---

<sup>42</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Assignment – Waters Act Financial Responsibility – Feb 1 21](#)  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 14 of 68



assignment of the Licence to Arctic in February 2021. The Board requires the posting of security prior to commencing of project activities as detailed in section 6.4, which also ensures Arctic further demonstrates its financial capacity.

Part C and Schedule 2 of the Licence and condition 48 in the Permit set out the security requirements for the Project, which must be met before Project activities begin. Under subsection 35(2) of the [Waters Act](#) and subsection 71(3) of the [MVRMA](#), the Minister can apply this security to carry out mitigations and remedial measures in the event of non-compliance with an Inspector's orders, or to carry out closure and reclamation if the site is abandoned. As detailed in [section 6.4](#) of these Reasons, the Board has established the security requirements based on the closure cost estimate information provided during this proceeding, so the Board is satisfied that adequate financial resources will be in place to ensure that the Project site can be restored.

As a result, and for the reasons set out above, the Board is satisfied that the legislated requirement to establish the financial responsibility of the Applicant for the Project has been met.

#### **5.12 Minimization of Adverse Effects**

With regards to subsection 27(2) of the [Waters Act](#), the Board must ensure that the Licence conditions minimize potential adverse effects on other water and land users from the proposed use of water and deposit of waste. As discussed above in [section 5.1](#), the Applicant conducted pre-application engagement, and the Board also provided opportunities for potentially affected parties to make submissions to the Board during the regulatory proceeding. The Board did not receive notice of potentially adverse effects on other users of the water and lands in the Project area.

Regardless, as noted above in sections 5.9 and 5.10, and as detailed in [section 6](#), the Board has set conditions in the Licence to regulate waste management for the purpose of protecting the receiving environment. Additionally, as described in [section 6.4](#), based on the evidence, the Board has set conditions regarding the use of water for the Project, including limitations on the sources and volumes of water the Licensee can use. It is the opinion of the Board that compliance with the Licence conditions that have been set to protect the water sources and the receiving environment will also minimize any potential adverse effects on other water and land users in the Project area.

#### **5.13 Time Limit**

As required under subsection 47(1) of the [Waters Act](#), the Board made its decision on the Licence within nine months after receiving the complete Licence Application.

As per section 22 of the [MVLUR](#), the Board is required to make its decision on a permit within 42 days of receiving a complete application. On June 10, 2021, the Board met and decided to apply paragraph

22(2)(b) of the [MVLUR](#) in order to develop Permit and Licence conditions that will effectively mitigate impacts of the proposed Project on the lands which will be affected.<sup>43</sup>

## **5.14 Environmental Review (Part 5 of the MVRMA)**

### **5.14.1 Preliminary Screening**

On August 24, 2021, the Board met and decided not to refer the Project to environmental assessment.<sup>44</sup>

In accordance with section 125 of the [MVRMA](#), the Board notified the Review Board of its preliminary screening determination, and in the ten days following the Board's notification of its preliminary screening determination to the Review Board, no notice of referral to environmental assessment (EA) was received. Subsequently, the Board continued with the regulatory proceeding.

The Board is satisfied that the requirements of Part 5 of the [MVRMA](#) have been met for the Project.

### **5.14.2 The Jay Project**

In its Applications, Arctic proposed the Jay WRSA be excluded from the Water Licence and indicated the Jay project would not be pursued as it was scoped in EA 1314-01, but may be rescoped and re-permitted at a later date, recognizing that it would be subject to Part 5 of the MVRMA at that time. In response to comments made during the public review of the Applications, Arctic proposed that the provisions related to the Jay Project be removed as a whole from the Licence to ensure no risk of concurrent activities or post-closure cumulative effects. The Board considered this proposal in its Preliminary Screening Determination and agreed that there was merit in the approach from the perspective of the screening, as it would reduce or eliminate potential impacts or cumulative impacts from Jay in relation to the Point Lake development. The Board noted that Arctic's proposal left important procedural and practical questions unaddressed with respect to the Jay Report of EA Measures, which by law had to be included in regulatory instruments. It was noted there is no provision in the MVRMA to vacate or remove these Measures, and their effects on roles and responsibilities of governments and other regulators were unclear.<sup>45</sup>

In its October 18, 2021 Decision, the Mackenzie Valley Environmental Impact Review Board (Review Board) decided not to order an environmental assessment of the proposed Point Lake Project under ss. 126(3) of the MVRMA.<sup>46</sup> The Review Board's decision was based on: the implementation of some Jay Measures that apply to the Point Lake Project; the commitment from Arctic to not build the Jay Project; commitments from Arctic and the GNWT related to the implementation of various Jay measures; and the mitigations that would result from the WLWB's Proceeding for the Licence Amendment and Permit

---

<sup>43</sup> See WLWB Online Registry for [Ekati – Point Lake - Decision Letter – Notification of Timeline Pause – Jun 10 21.](#)

<sup>44</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Preliminary Screening Determination and Reasons for Decision – Aug 24 21](#)

<sup>45</sup> *Ibid.*

<sup>46</sup> See WLWB Online Registry for [Ekati - Point Lake - Review Board 126\(3\) Decision - Oct 18 21.pdf](#)

Applications. The Review Board noted there was still an outstanding procedural issue with respect to the ability of the WLWB to disregard or amend measures from an EA and agreed with the WLWB that “there is no provision in the MVRMA to vacate or remove these Measures.” MVEIRB suggested this issue should be addressed before the approval of any amendments to remove Jay Project conditions from any regulatory permit or licence.

Before its October 18<sup>th</sup>, 2021 decision, MVEIRB sent Information Requests to Arctic and GNWT-Lands to determine what Jay Measures were being implemented, what Measures would apply to Point Lake development, and what Measures were not required in light of the Jay Project cancellation.<sup>47</sup> In its response, GNWT-Lands indicated that “once the Jay Project is no longer authorized, there is no legal requirement to continue the implementation of those Jay Project measures. There is also no legal requirement to apply measures from the Jay Project to the Point Lake Project.” GNWT indicated its continuing commitment to implementation of the following Measures: Measures 6-2(b), 6-4, 6-6, 8-1, and 13-4 which were directed primarily at the GNWT, and Measures 4-4, 6-1(d), 6-2(a)(iii and iv), 6-3, and 9-1 which were partially directed at the GNWT.<sup>48</sup>

In its response to MVEIRB, Arctic indicated its view was that “Jay Measures solely related to the Jay Project are no longer relevant, given Arctic’s commitment to not proceed with the Jay Project.” Arctic noted it was “happy to have its commitment [to cancel the Jay Project] enshrined in the relevant regulatory approvals.” Arctic provided a Table summarizing its review of Jay Measures in response to the IR.<sup>49</sup> Arctic indicated the following:

The following Jay Measures would be carried forward: 4-2(a) – Site Water Management Plan; 6-1(a) – Caribou offset and mitigation plan (through the *Wildlife Act*); 6-5 – Traditional Knowledge-based Caribou Monitoring and Mitigation; and 7-2 – On the Land Culture Camp.

The following Jay Measures were complete and/or in effect: 6-1 – Road Mitigation from Caribou Impacts (as regulated under the *Wildlife Act* through the WEMP and CRMP); 6-3 – Air Quality Emissions Monitoring and Management Plan; 6-4 – Dustfall Standards; 7-1 - Traditional Knowledge Management Framework; 9-2 – Reporting on Greenhouse Gas Emission and Management; 13-1 – Monitoring and Adaptive Management by Dominion; and 13-3 – Annual Reporting from Dominion.

Arctic said the following Jay Measures would not be carried forward or were completed: 4-2(b) – Pit Lake Water Quality; 4-3 – Fine Processed Kimberlite; 4-4 Dike Stability and

---

<sup>47</sup> See WLWB Online Registry for: [Ekati - Point Lake Project - MVEIRB Information Request to Arctic Canadian Diamond Company Ltd. - Sep 6 21.pdf](#); [Ekati - Point Lake Project - MVEIRB Information Request to GNWT - Sep 6 21.pdf](#)

<sup>48</sup> See WLWB Online Registry for [Ekati - Point Lake - GNWT Response to MVEIRB IR - Sep 24 21.pdf](#)

<sup>49</sup> See WLWB Online Registry for [Ekati - Point Lake - Arctic Response to MVEIRB IR - Sep 24 21.pdf](#)

Safety; 5-1 – Protection of the Narrows; 8-2 – Supporting Increased Employment Opportunities for Women; and 9-1 – Incineration – Stack Testing and Reporting; 13-2 – Engagement on Cultural Impacts.

On December 15, 2021, MVEIRB sent CIRNAC a letter outlining outstanding procedural issues and concerns, including the relationship between the Jay Project EA and the Point Lake Project and what process is required to change or remove conditions related to approved measures from the Jay Project EA from regulatory instruments, in this case, the Arctic Water Licence.<sup>50</sup> MVEIRB asked for CIRNAC's assistance in addressing these issues. MVEIRB noted there was no provision in the MVRMA to vacate or remove the Jay Measures, and asked CIRNAC for its opinion on what procedure would be required to amend or remove recommended measures or cancel decisions on recommended measures. CIRNAC responded on February 28, 2022, noting that "despite the relationship between the proposed Point Lake Project and the approved Jay Project, including their location and use of the Jay Road, the projects remain distinct and are both subject to the Act."<sup>51</sup>

CIRNAC suggested that in order to remove Jay Project elements from regulatory approvals such as the Water Licence, Arctic would need to apply to amend the applicable Licences and Permits. As identified above, the WLWB was asked by Arctic in the initial review of the Applications to remove conditions related to Jay Project measures from the Licence. The Board considered the removal of the Jay Project measures and conditions in its Preliminary Screening Determination, and it was made clear to Parties that the removal of Jay Project conditions was being considered with respect to the Project scope going forward in the Proceeding. The Board is of the opinion that the consideration of removing Jay Project elements was clear from the initial stages of this Amendment proceeding and a separate Amendment Application is not necessary. The Board also recognizes that Parties were provided several opportunities to provide input on the proposed removal of conditions solely related to the Jay Project and no concerns were raised.

With respect to the application of Jay Measures, CIRNAC noted that with the cancellation or abandonment of major project components, additional environmental impacts would not occur, but CIRNAC agreed that a project change which affects approved measures in a report of EA requires assessment. CIRNAC observed, however, that what is at issue before the WLWB is not a change to the Jay Project but rather the licensing and permitting of the new Point Lake Project. CIRNAC indicated further, in accordance with the MVRMA, "the evidence on the record will come to bear in the event of any future assessment of a Jay Project change."

On December 17, 2021, the Review Board sent GNWT a letter noting that it had asked CIRNAC questions as outlined in the December 15<sup>th</sup>, 2021 letter and asked GNWT to clarify its position on Jay Measures being defunct as a result of the cancellation of the Jay Project. MVEIRB also asked GNWT to await the response

---

<sup>50</sup> See WLWB Online Registry for [Ekati - Point Lake - MVEIRB Letter to CIRNAC RE s. 126 Determination - Dec 16 21.pdf](#)

<sup>51</sup> See WLWB Online Registry for [Ekati - Point Lake - Jay Project Measures - CIRNAC letter - Feb 28 22.pdf](#)

from CIRNAC before taking any actions that may affect Jay Measures that will mitigate potential impacts from the Point Lake Project. In its February 21<sup>st</sup>, 2022 response, GNWT noted it had not identified a legal requirement to maintain water licence conditions reflecting the Jay Project measures.<sup>52</sup>

GNWT noted it believes Jay Measures would only apply to the extent that certain parts of the Jay Project have already been constructed and some of those activities continue, and that Jay Measures would only apply to aspects of the Point Lake Project that constitute the same type of activity.

In its Intervention, FRMG recommended that Jay Measures related to mitigation of cumulative effects impacts and committed to by Arctic in its IR response to the Review Board, be reflected in conditions regulated by the Board. Based on responses from MVEIRB, GNWT, Arctic, and CIRNAC, the Board has decided relevant Jay Measures that are still applicable to the Point Lake Project will continue to be reflected in the Amended Licence and Permit. The removed Measures and Jay Project-related conditions are further discussed in [section 6.14](#) of these Reasons.

#### **5.15 Removal of other Licence Conditions**

The Board also decided to remove some Licence conditions that were related to amendments of the previous Licence, which have requirements that have already been fulfilled. This was done for clarity, as these requirements are no longer needed and serve no further purpose in the Licence.

#### **6.0 Decision – Water Licence W2020L2-0004**

Having due regard to the facts, circumstances, and the merits of the submissions made to it, and to the purpose, and provisions of the [MVRMA](#) and the [Waters Act](#), the Board has determined that the amended Licence W2020L2-0004 should be issued, subject to the scope, defined terms, conditions, and term contained therein. The Board’s determinations and reasons for this decision are set out below.

The Licence has been developed to address the Board’s statutory responsibilities; to protect the receiving environment and minimize potential adverse effects on other water users; and to address issues within the Board’s jurisdiction that were identified and investigated during the regulatory proceeding.

In making its decision and preparing these Reasons for Decision, the Board has reviewed and considered:

1. The evidence and submissions received by the Board from the Applicant; and
2. The comments and recommendations, evidence, and submissions received by the Board from Parties during the regulatory process.

As noted in [section 4.0](#) above, Board staff circulated a draft Licence for review to allow Parties to provide specific input to the Board on possible conditions. The Board’s reasons for developing and including

---

<sup>52</sup> See WLWB Online Registry for [Ekati - Point Lake - Jay Project Measures - GNWT Lands - Feb 21 22.pdf](#)

Project-specific conditions are detailed in the relevant sections below. The Reasons for Decision set out below focus on the major concerns and issues raised by Parties, including those that were the subject of substantive argument submitted by one or more Parties.

#### Not All Conditions and Comments are Discussed in Detail in the Reasons for Decision Below

There were several conditions/definitions and comments addressed through this Proceeding for the Licence and Permit that are not discussed in detail in these Reasons for Decision. These include:

- Conditions/definitions that were included to reflect the Standard Licence Conditions and for which no comments indicating concern or opposition were received;
- Conditions/definitions that were updated to reflect recommendations made by either Arctic or Parties during review of the Draft Water Licence and Land Use Permit that were for minor clarifications or administrative updates and that did not change the intent of the condition/definition; and
- Definitions that were added specific to the Point Lake Project for which no comments indicating concern were received.

#### Comments Outside the Board's Jurisdiction

A number of comments were received on the draft Licence and in Closing Arguments with respect to concerns and recommendations outside of the Board's jurisdiction. These include FRMG comment 5 and Closing Arguments that addresses new requirements for Indigenous participation in monitoring programs including capacity support. This requirement is outside of Board jurisdiction and as such was not considered in this Licence Amendment.

### **6.1 Part A: Scope and Defined Terms**

Part A of the Licence contains the scope and the defined terms used throughout the Licence.

#### **6.1.1 Scope**

The scope of the Licence is written to ensure the Licensee is entitled to conduct activities that have been applied for and, where required, have been subject to Part 5 of the [MVRMA](#). In setting out the scope of the Licence the Board endeavoured to provide enough detail to identify and describe the authorized activities without being unduly restrictive or prescriptive to allow for project flexibility, as contemplated in the Application, throughout the term of the Licence.

In its comments on the draft Licence scope, GNWT-ENR noted that a gap appears to exist in the project descriptions, as the scope is linked to Environmental Impact Assessments (EIAs). The Board notes here that EIAs was a term defined under the Canadian Environmental Assessment Act and is not commonly used presently because, under Part 5 of the MVRMA, Preliminary Screening is also included in the impact review process. GNWT-ENR recommended that the scope be updated to ensure developments that did not proceed to EIA be included. Arctic responded that it disagreed that there was a "gap" and noted that

projects that did not undergo EIA (for example Lynx and Misery Underground) are included in the Licence. Arctic indicated it found no rationale for further amendment of the scope. The Lynx Pit and Point Lake developments underwent Preliminary Screening, which is the first step of environmental impact assessment under the MVRMA. The Board has made revisions to the scope to be more clear that both previous EIAs conducted under earlier legislation, and all subsequent determinations/assessments made under Part 5 of the MVRMA (i.e., Preliminary Screenings, Environmental Impact Assessments, and Environmental Impact Reviews) are included.

The other conditions in Part A ensure that the scope of the authorization includes all water uses and deposits of waste associated with the Project, and also clarifies that the Licensee must comply with applicable legislation, including any changes to legislation that are deemed to automatically amend the Licence.

### **6.1.2 Defined Terms**

The Board defined certain terms in the Licence to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Licence, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. Some definitions related to the Jay Project were removed including: Geochemistry Baseline Report, Jay Development, Jay Dyke, Jay Dyke Review Panel, Jay Report of Environmental Assessment, Letter of Acceptance, and North Dyke. Where appropriate, the Board created new definitions, modified standard wording, or used Project-specific definitions to reflect the evidence as described below:

- **Point Lake Development** was included to ensure a clear description of this Project.
- **Shake Flask Extraction and Net Acid Generation Report** was included to ensure a clear description of the report.
- **Back-flooding, Dam, Misery Pit Minewater Management Facility, and Traditional Knowledge Management Framework** were revised to reflect the removal of the Jay Project.

During the review of the draft Licence, Arctic commented on the draft definition of “Point Lake Development”, noting that a specific reference had been added to the initial Project application dated May 2021, and recommended that this addition not be included in the Licence (Arctic comment 1). This specific reference had been included in the draft Licence to capture where these activities and facilities were described. The Board notes that the Preliminary Screening determination under Part 5 of the MVRMA captures this description and has incorporated this reference into the scope in Part A, Condition 1 a).

In Closing Arguments, GNWT-ENR recommended that the term “aquatic” be removed from the definition of Receiving Environment. GNWT acknowledged that a comment on the definition of receiving environment was not submitted during review of the draft Licence but requested the Board consider GNWT’s recommendation for the final Licence. Arctic responded in Closing Arguments, that GNWT acknowledged this was the first time this recommendation had been made during the Proceeding, and it

was procedurally unfair to consider this change when no other evidence had been provided. Arctic noted this change could have potential effects on other Licence conditions related to the Receiving Environment. Arctic suggested this change should be included as part of a renewal of the Licence. The Board agrees that with respect to procedural fairness, this recommendation is not appropriate at this point in the Proceeding. The Board also notes that it made a previous decision that a change in definition for Receiving Environment for W2020L2-0004 can be considered during the upcoming renewal Proceeding.<sup>53</sup>

## **6.2 Part B: General Conditions and Schedule 1**

Part B and Schedule 1 of the Licence primarily contain general administrative conditions regarding compliance and conformity with the [MVRMA](#) and [Waters Act](#), as well as LWB policies and procedures.

### Part B: ANNUAL WATER LICENCE REPORT

The requirements for the Annual Water Licence Report are outlined in Part B: ANNUAL LICENCE REPORT, and Schedule 1, Condition 1. The purpose of the Annual Water Licence Report is to provide the Board and all interested Parties updates on: Project components and activities, compliance with Licence conditions, and to provide a platform for interested parties to submit comments, observations, feedback, and questions as necessary. The Report is also an important tool for evaluating the effectiveness of the Licence conditions.

In this Amendment, the Annual Report requirements in the Licence remain mostly unchanged. The Board made minor changes to reflect recommendations received from Parties.

For clarity, Annual Water Licence Reports are required each year, regardless of whether the Licensee has conducted any activity during the reporting year.

### Part B: ENGAGEMENT PLAN

The Board assesses adequacy of engagement through the MVLWB [Engagement and Consultation Policy](#), and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). In accordance with the Policy and Guidelines, the Applicant included the Engagement Record<sup>54</sup> and the most recently approved site-wide Ekati Engagement Plan (Version 4.1)<sup>55</sup> with its Point Lake Applications. These documents were distributed for public review with the Applications and Board staff note that Version 4.1 of the Engagement Plan was previously approved by the Board on August 24, 2018.<sup>56</sup>

---

<sup>53</sup> See WLWB Online Registry for [Ekati – WROMP – 2019 Seepage Survey Report and WROMP V11 – Reasons for Decision – Mar 15 22](#)

<sup>54</sup> See WLWB Online Registry for [Ekati – Point Lake – Project Description – May 21 21; pg. 486](#)

<sup>55</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Engagement Plan – Version 4.1 – Jul 27 19](#)

<sup>56</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Engagement Plan – Version 4.1 – Board Letter – August 27 18](#)



In its review of the Draft Licence, FRMG commented that FRMG was listed as an affected party in the approved Engagement Plan, but that it had not “had opportunity to review with Arctic the effectiveness of the plan for supporting FRMG engagement nor has adequate engagement occurred concerning FRMG required protocols for the Point Lake Project” and recommended that the water licence require annual review of the Engagement plan (FRMG comment 2). The Board notes that an annual review of the Engagement Plan by Arctic is required as per Part B, Condition 4 of the Licence. In review of the draft Licence, FRMG recommended that additional text be added to Part B, Condition 16 with respect to consideration and incorporation of Traditional Knowledge (FRMG comment 4). The Board agrees with the importance of the FRMG’s recommendation and notes that Part B, Conditions 15-17 require the consideration and incorporation of Traditional Knowledge. The Board notes that these recommendations and evidence were not previously raised during the Proceeding, and as such has not been incorporated with this Amendment at this time. The Board is of the opinion that the currently approved Engagement Plan for the Ekati mine (i.e., Version 4.1) is appropriate for the Point Lake Project at this time, and that it provides an appropriate mechanism for Arctic to engage with FRMG and other Parties with respect to these concerns.

In review of the draft Licence, IEMA recommended that the term “Engagement Plan” be defined or described in a manner similar to the previous text in Part B, Condition 11, which referred to the MVLWB’s *Engagement Guidelines for Applicants and Holders of Land Use Permits and Water Licences*, June 2013 (IEMA comment 8). Arctic responded that the Board “has and would only approve an Engagement Plan that is consistent with the Boards’ related Policies and Guidelines” and found no rationale for retaining the wording regarding the Policies and Guidelines in the previous Part B, Condition 11. The Board recognizes that the Standard Licence conditions now include a definition for Engagement Plan. Part B, Condition 11 was revised to reflect the already approved Engagement Plan in place for Ekati. The Board notes that, in their response, Arctic recognized the guidelines in place for the Engagement Plan and provided no evidence to indicate it would be burdensome or affect Arctic’s future submissions to include a definition for Engagement Plan. The standard definition has been added to the Licence.

### **6.3 Part C: Conditions Applying to Security Requirements and Schedule 2**

Under subsection 35(1) of the [Waters Act](#), the Board is authorized to require the Licensee to provide security to the Minister. Subsection 35(2) of the [Waters Act](#) specifies how the security may be applied. As per INAC’s *Mine Site Reclamation Policy for the Northwest Territories*: “Adequate security should be provided to ensure the cost of reclamation, including shutdown, closure and post-closure, is born by the operator of the mine rather than the Crown.”<sup>57</sup> Part C of the Licence, by reference to Schedule 2, sets the amount of security to be maintained by the Licensee and sets out requirements related to posting and updating security.

---

<sup>57</sup> See WLWB Policies and Guidelines webpage to access the MVLWB/INAC/GNWT [Guidelines for Closure and Reclamation Cost Estimates for Mines](#).

Based on the evidence regarding closure cost estimates for the Project, the Board has determined that the total security deposit amount shall be \$28,101,255. This includes the security for Permit W2021D0005 at \$986,852 and Licence W2020L2-0004 for Point Lake at \$27,114,403.

In its Intervention, GNWT-ENR identified two concerns with the security costing approach used by Arctic: (1) calculation of inflation, and (2) proposed unit rate for long haul and placement of rock cover.

GNWT-ENR noted the calculation of inflation for different unit rates, developed internally by Arctic, was not consistently used in all cost activities. GNWT-ENR proposed applying a Consumer Price Index (CPI) inflation factor to bring 2014 base unit rates to 2021 dollars. Arctic responded that it did not believe it was appropriate for the GNWT to “unilaterally apply inflation adjustments, that are not fully rationalized and that may be additive with inflation that has already been incorporated.” Arctic suggested the issue could be further discussed in ongoing review of administrative aspects and inflation for the Ekati Diamond Mine security estimate in 2022.<sup>58</sup> During the Hearing, Board staff asked GNWT-ENR if its preference was to apply inflation costs as part of the Point Lake Proceeding and/or as part of the next RECLAIM submission. GNWT-ENR indicated it was its preference to do both. In Closing Arguments, GNWT-ENR and Arctic maintained respective recommended security values. Arctic stated it believed GNWT had included inflation without providing supporting data and was concerned the inflationary inclusion may double up on Arctic’s recent inflationary factors. In its June 10, 2021 Reasons for Decision on Diavik’s CRP Version 4.1, the Board addressed the use of inflation in the RECLAIM estimate. The Board noted that given the significant cost associated with inflation, the consistency of approach with other sites in the Mackenzie Valley, and consistency with previous WLWB direction, the GNWT-ENR’s proposed approach to inflation was appropriate.<sup>59</sup> The Board is of the opinion that a similar approach to inflation is suitable in this Proceeding. As GNWT applied an inflation factor to bring 2014 base unit rates to 2021 dollars, and Arctic did not provide examples of where the inflation “may double up” on Arctic’s inflationary factors, it is unclear how inflation adjustments may have been duplicated. The Board is of the opinion a conservative approach to setting security is appropriate and notes that Arctic may apply for a security refund with evidence to support any duplication of inflation and all Parties will have the opportunity to revisit inflation in the next RECLAIM submission.

GNWT-ENR also noted an issue with the proposed unit rate for the proposed long haul and placement of rock cover for the waste rock covers. GNWT-ENR provided a different version of the unit rate for hauling and placing waste rock from the Lynx site to the proposed Point Lake waste rock pile.<sup>60</sup> Arctic noted that GNWT-ENR’s Intervention indicated its suggested unit cost was high, and that the cost would be lower with larger trucks. Arctic stated that Point Lake reclamation costs were considered as part of the whole Ekati mine reclamation efforts, which would be completed with large mining equipment, and was consistent within the overall reclamation security estimate. Arctic suggested the issue could be further

---

<sup>58</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Arctic Response to Interventions – Nov 12 21](#)

<sup>59</sup> See WLWB Online Registry for [Diavik – CRP – Version 4.1 – Reasons for Decision – Jun 10 21](#)

<sup>60</sup> See WLWB Online Registry for [Ekati – Point Lake Project – GNWT Intervention – Nov 1 21](#)

discussed in ongoing review of administrative aspects and inflation for the Ekati Diamond Mine security estimate in 2022.<sup>61</sup> At the Hearing, Board staff asked GNWT-ENR if it believed Arctic's rationale regarding the more appropriate use of larger haul trucks for the reclaim unit rate for the long-haul cost was adequate. GNWT-ENR responded that it checked to see if the generic assumptions in the model were appropriate, and noted the long haul proposed for the Point Lake project is outside the normal expected range for the unit rates of Point Lake. GNWT-ENR confirmed it determined the rate provided by Arctic was not appropriate, and then used first principles using standard construction methods to form a long-haul rate for Point Lake.<sup>62</sup> In Closing Arguments, Arctic and GNWT maintained proposed security amounts for Point Lake. Arctic indicated it believed its estimate maintained internal consistency within the RECLAIM model, and that it believed GNWT had used a new and increased unit rate for hauling and placing of cover materials. Arctic indicated it believed this rate was based on a low-efficiency truck sizing factor "originating from a pessimistic assumption of possible future mobilization on a theoretical future winter road." The Board notes that as per the RECLAIM – Mining Guidelines (2017), security costs are based on third-party contractors conducting all the work, including mobilization costs for every piece of equipment or machine required for the work. Arctic's assumption that the reclamation work would be completed by larger haul trucks is not necessarily accurate, and GNWT-ENR has provided rationale for the provided rate based on standard construction methods.

In Closing Arguments, GNWT-ENR maintained its proposed Intervention recommendation for total security for Point Lake to be set at \$28,101,255. Arctic responded that it maintained its recommended reclamation total of \$22,672,400. Given the reasons discussed above, the Board has set security as per GNWT-ENR's recommendation.

In its Intervention, LKDFN recommended that a higher risk perspective should be applied to security discussions, and that there be consideration of non-closure commitments and requirements.<sup>63</sup> At the Hearing, GNWT-ENR asked LKDFN to clarify how they recommended this perspective be applied and if they could provide any specific examples of how this could be applied to non-closure commitments and requirements. LKDFN responded that this was a new company with no history, and as a single-asset company, there was a greater risk.<sup>64</sup> LKDFN provided the example of the Elders Committee as a non-closure commitment and noted that when Dominion Diamond Mines ULC was going bankrupt, the first activities to be cut back were commitments made to First Nations. However, LKDFN noted it did not have any specific suggestions for recommending application of a higher risk perspective. The Board recognizes that Version 3.1 of the CRP is coming later in 2022, and all Parties will have an opportunity to review the Plan and costs associated with closing and reclaiming the mine.

---

<sup>61</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Arctic Response to Interventions – Nov 12 21](#)

<sup>62</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – Day 4 Transcript – Nov 26 21](#); pgs. 75-80

<sup>63</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – LKDFN Intervention – Oct 28 21](#)

<sup>64</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 3 Transcript – Nov 25 21](#); pg. 184-190

Consistent with recent Board practice, the Board has placed the land-related liability amounts under the Land Use Permit and the water-related liability amounts under the Water Licence: \$986,852 is required under the Permit, as identified in [section 7.4](#) of these Reasons, and \$287,134,773 (an additional \$27,114,403 for the Point Lake Project) is required under the Licence.

Like other licences, the Licence includes conditions that allow the Board to request an updated Closure Cost Estimate from the Licensee at any time, and to adjust the security amount at any time, based on available information. The Board expects the Licensee to work with the landowner during the development of any closure cost estimate revisions, to ensure their concerns and recommendations are understood and addressed if possible.

The Board is satisfied that the security requirements it has imposed ensure that sufficient financial resources will be in place in advance of any liabilities that will be incurred.

Within two weeks of the issuance date of the Licence, the Licensee must submit a revised RECLAIM estimate that reflects the Board's decisions on the estimate as set out by GNWT-ENR. Once Board staff confirm conformity of the revised estimate, it will be posted to the Board's public registry to be used as the basis for the next update to the closure cost estimate.

#### **6.4 Part D: Conditions Applying to Water Use**

Part D of the Licence contains conditions related to water use for the Project. Part D Conditions 1, 2, and 3 were revised to reflect the removal of the Jay Project and addition of the Point Lake Development.

The maximum quantity of water that can be withdrawn from Point Lake is 7,800,000 m<sup>3</sup>.

In its Intervention, DFO stated that:

...flow augmentation into Connor Lake during critical times of the year may be required to ensure the maintenance of water levels in the Connor Lake North Outflow in support of the spawning and rearing activities of the grayling population. It is DFO's position that this be taken into consideration in the issuance of the water licence for the Point Lake Project.

Point Lake flows into Connor Lake, so during the period of mine operations when Point Lake is dewatered and mined out, the flow to Connor Lake will be disrupted. During the Hearing, Arctic stated that the Dewatering Plan would be updated to include water from the dewatering of Point Lake being used for flow augmentation to Connor Lake if needed.<sup>65</sup> Arctic's Licence amendment application included the one-time dewatering use of Point Lake water, which was included in the Preliminary Screening. Arctic

---

<sup>65</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg. 54  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 26 of 68

proposed that if DFO decided flow augmentation is required as part of its process, Arctic would apply for an amendment to the Licence following the first year of dewatering at Point Lake, and Point Lake dewatering would be used for the first year of flow augmentation in 2022.<sup>66</sup> Arctic provided an updated Dewatering Plan (Version 2.0) as an Undertaking from the Hearing with the new proposed use of Point Lake dewatering for Connor Lake flow augmentation. The Plan was distributed for public review on December 6, 2021.<sup>67</sup> In its review of the Dewatering Plan, GNWT-ENR asked for some clarification on timing of flow being directed to Connor Lake and recommended water quality monitoring (GNWT-ENR comments 1 and 2).<sup>68</sup> Arctic responded that if Dewatering flow to Connor Lake is required, it would be concurrent with Dewatering outflow to Lac du Sauvage, and confirmed that SNP sampling would be conducted for Dewatering outflow to Connor Lake. No comments were received on the Dewatering Plan with respect to concerns for the use of Point Lake dewatering water for flow augmentation to Connor Lake. As such, the Board has decided the water use outlined in Part D, Condition 3 for Point Lake is suitable for one-time flow augmentation to Connor Lake. However, the Board recognizes that if additional flow augmentation is required beyond the initial Dewatering, that a Licence Amendment may be required.

## **6.5 Part E: Conditions Applying to Dewatering and Schedule 4**

Part E of the Licence contains conditions applying to Dewatering and Drawdown activities for the Project. Arctic submitted a Point Lake Project Dewatering Plan (Dewatering Plan) Version 1.0 as part of its Water Licence Amendment Application.<sup>69</sup> Because Arctic had requested the Board approve the Dewatering Plan with issuance, the Dewatering Plan was subsequently revised three times during this proceeding; initially as a result of recommendations from the technical workshop (V2.0), next as an Undertaking following discussions at the public hearing (V2.1), and thirdly in Arctic's response to Parties recommendations during the public review (V2.2).

### **6.5.1 Comments related to Dewatering Plan approval**

In its Intervention, GNWT made a number of recommendations regarding the Dewatering Plan, including that it be submitted for review and approval post-licence issuance, and that a corresponding requirement for submission and approval be added to Schedule 4 of the Licence, as was previously done for the Lynx, Jay Dyke, and North Dyke Dewatering Plans.<sup>70</sup> Arctic responded that there was a condition in the Licence (Part E, Condition 1) that required a Dewatering Plan prior to any Dewatering activity, and a specific condition was not required. Arctic also noted that the Dewatering Plan had undergone public review through the proceeding and further public review would be redundant. During the Public Hearing, GNWT-ENR noted that sometimes the reasons for decision require revisions and resubmission of a plan for a conformity check in cases where there are commitments made by the company.<sup>71</sup> The TG noted during

---

<sup>66</sup> *Ibid* pg. 55

<sup>67</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Point Lake Dewatering Plan V 2.1 – Dec 1 21](#)

<sup>68</sup> See WLWB Online Review System for [Ekati – Point Lake Project – Dewatering Plan V 2.1 Review Summary](#)

<sup>69</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Dewatering Plan – May 31 21](#)

<sup>70</sup> See WLWB Online Registry for [Ekati – Point Lake Project – GNWT Intervention – Nov 1 21](#)

<sup>71</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 71

the Hearing that it looked at the review processes in terms of review efficiency, from a project time-line perspective, and a capacity and planning perspective, and felt it was similar in terms of timeline and steps if the Dewatering Plan were revised during the Licence Amendment Proceeding.<sup>72</sup> The Board notes that Dewatering Plan Version 2.1 was available for review as a separate Item for Review from December 6, 2021 to January 11, 2022.<sup>73</sup> During review of the draft Water Licence, GNWT-ENR maintained its recommendation that a specific condition be added for submission of the Point Lake Dewatering Plan, and inclusion in Schedule 4 (GNWT-ENR comment 2). IEMA also recommended Part E, Condition 1 require the Point Lake Dewatering Plan be submitted for approval by the Board (IEMA comment 9). Arctic responded that it found “no compelling rationale for the inclusion of conditions that would unnecessarily delay approval of the Point Lake Dewatering Plan.” The Board notes that these recommendations will be addressed by virtue of the Board’s consideration of, and decision on, the Dewatering Plan submission.

In review of Version 2.1 of the Dewatering Plan, IEMA noted a discrepancy in the anticipated duration of Stage 1 dewatering activities, and recommended inclusion of a clear timeline figure and clarification of uncertainties (IEMA comment 4). Arctic responded that the discrepancy was an error on Arctic’s part and clarified the approximate timeline for Stage 1 dewatering is 80 days.

#### **6.5.2        *Comments related to monitoring***

In review of Version 2.1 of the Dewatering Plan, DKFN noted that a schedule for water quality monitoring, along with monitoring locations was presented in section 2(g) of the Plan; however, the intent and schedule of each type of sampling was unclear (DKFN comment 1). Arctic responded that water sampling for the Dewatering program is conducted in accordance with the Surveillance Network Program (SNP), for the purpose of documenting “the quality of water being pumped from a natural water body through a Dewatering or Drawdown program.” Arctic reviewed section 2(g) and found it was clear and did not propose a change. The Board agrees that the intent and frequency of the sampling is clear within the Dewatering Plan, as well as within Annex B of the Licence.

In review of Version 2.1 of the Dewatering Plan, DKFN recommended TSS trigger levels for switching pumping to and from Lac du Sauvage to the KPSF or Lynx Pit be presented in a flow-chart format (DKFN comment 2). GNWT-ENR also recommended that the trigger for cessation of pumping during Stage 1 Dewatering be clearly defined (GNWT-ENR comment 3). Arctic responded that it no longer envisioned resuming pumping to Lac du Sauvage after the initial switch to pumping to the KPSF/Lynx Pit, and as such the trigger was removed from the Plan in Version 2.2. Noting that this trigger no longer exists, the Board believes concerns around understanding the trigger have been addressed and no further information is needed. A trigger for ending Stage 1 Pumping to the Receiving Environment and switching to the KPSF/Lynx Pit is outlined in section 3.0 of the Dewatering Plan.

---

<sup>72</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 3 Transcript – Nov 25 21](#); pg 220

<sup>73</sup> See WLWB Online Review System for [Ekati – Point Lake Project – Dewatering Plan V 2.1 Review Summary](#)

In review of the draft Licence, FRMG recommended monitoring requirements related to dewatering and drawdown that include confirmation of re-establishment of the groundwater regime after closure (FRMG comment 6). Arctic responded that the closure monitoring requirements are described, and would continue to be advanced, in the interim Closure and Reclamation Plan. The Board agrees this is an appropriate mechanism for addressing these recommendations. FRMG also recommended the Licensee be required to provide free access to FRMG for independent inspection. As noted by Arctic, monitoring reports are publicly reported to the Board and available on the Registry for all Parties to review. As such, the Board is not of the opinion that an additional condition for access is necessary at this time.

Other comments from GNWT-ENR in review of Version 2.1 of the Dewatering Plan (GNWT-ENR comment 1 and 2) were points of clarification or changes agreed to by Arctic and added to Version 2.2, and as such are not discussed further here. In response to comments during the review of Version 2.1 of the Plan, Arctic provided a revised Dewatering Plan (Version 2.2) with its responses.<sup>74</sup>

### **6.5.3      *Comments related to caribou habitat***

In its Intervention and review of Version 2.1 of the Dewatering Plan, IEMA recommended that contingencies be provided in the Dewatering Plan in the event that first stage dewatering activities were delayed into September 2022 and may affect caribou migrating through the Ekati project area. In review of the Plan, IEMA also noted that unforeseen emergency situations have arisen at the Ekati mine, that require immediate actions. IEMA stated that “contingency planning and adaptive management are time-tested anticipatory approaches to addressing such situations”, and suggested similar planning be in place for dewatering activities that may impact caribou (IEMA comment 3).<sup>75</sup> Arctic responded to IEMA’s Intervention that it intended to retrieve the dewatering pipelines as soon as reasonably achievable after use. Arctic noted that the pipelines would be constructed with caribou crossings so that they didn’t represent a significant risk to caribou if in place after August, and therefore additional contingency or mitigations were not required. The Dewatering Plan includes Arctic’s commitment to retrieve the Dewatering pipelines, with the “prioritizing retrieval of the pipeline east of Point Lake as soon as reasonably achievable after completion of Stage 1 pumping.”

In its Intervention, IEMA recommended the Dewatering Plan include an outline of the design, construction, and operation of the dewatering pipelines. The TG also recommended in its Intervention that Arctic ensure the pipeline for dewatering Point Lake not negatively impact caribou movement. Arctic responded that the pipelines would be constructed with caribou crossings, and that it planned to present and finalize details for the crossings as part of the WEMP/CRMP Addendum and didn’t see the rationale for the recommendation. During the public hearing, Arctic again noted that these details would be addressed through the WEMP Addendum.<sup>76</sup> Arctic also committed to providing the design of the buried

---

<sup>74</sup> See WLWB Online Registry for [Ekati - Point Lake Project - Point Lake Dewatering Plan V. 2.2 - Jan 20 22.pdf](#)

<sup>75</sup> See WLWB Online Review System for [Ekati – Point Lake Project – Dewatering Plan V 2.1 Review Summary](#)

<sup>76</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg. 140, lines 12-18. W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 29 of 68

dewatering pipeline prior to the dewatering infrastructure being installed.<sup>77</sup> During review of Version 2.1 of the Dewatering Plan, IEMA noted that the proposed Point Lake WEMP addendum was circulated on December 15, 2021, but a preliminary review did not “reveal any locations, design features or specifications for the covered sections of the dewatering pipeline.” IEMA recommended that design and construction details on the dewatering pipelines should be included with the Dewatering Plan (IEMA comment 2). In review of Version 2.1 of the Dewatering Plan, WRRB also recommended that a description of how crushed rock location placement over dewatering pipelines will be determined be provided (WRRB comment 1). Arctic recommended the details described by IEMA be determined as a part of the Point Lake Project WEMP Addendum, which had a workshop scheduled for February 15-16, 2022. The Point Lake Project WEMP Addendum is not a Board requirement and falls under GNWT legislation. Arctic noted that this way the pipeline crossing details could be integrated with installation locations, monitoring plans, and other aspects of the WEMP Addendum.

The Board recognizes the potential risks of impacts to caribou habitat later in September as identified by IEMA, and while Arctic has proposed the information recommended by WRRB and IEMA could be addressed in the Point Lake WEMP Addendum, it is unclear when and how that information will be provided. The Board also notes that the Point Lake WEMP Addendum is not being reviewed prior to Dewatering of Point Lake and given the uncertainty on where and how these details will be provided, is of the opinion that that it is appropriate for these details to be available for public review.

The Board is of the opinion that Parties’ recommendations regarding the Dewatering Plan have been incorporated into Version 2.2, as discussed in section 6.5.1 and 6.5.2, with the exception of those identified in section 6.5.3. As such, the Board has decided to approve Version 2.2 of the Point Lake Dewatering Plan in order to allow for dewatering activities to commence. However, Version 3.0 of the Point Lake Dewatering Plan is to be submitted within 15 days of Licence issuance to include caribou crossing details for dewatering pipelines and description of contingency and adaptive management actions to be implemented in the event that Stage 1 dewatering activities are delayed into September 2022 or later. The Board strongly encourages Arctic to submit this plan as soon as possible upon Licence issuance. Part E, Condition 1 and Schedule 4, Condition 1 have been revised to reflect this Board direction.

## **6.6 Part F: Conditions Applying to Construction and Schedule 5**

Part F and Schedule 5 of the Licence contain conditions applying to Construction activities for the Project.

In its review of the draft Licence, IEMA recommended that in relation to Part F, Conditions 1 and 2, Construction Plans be required to contain actual designs, including specifications/methods for material types and placement, and design analyses (IEMA comment 10). IEMA also recommended that Part F, Condition 9 be revised so that As-built Reports of completed Constructed Engineered Structures include all QA/QC data, as it demonstrates that facilities were constructed according to design and confirms the

---

<sup>77</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg. 142  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 30 of 68



Engineered Structures meet design specifications (IEMA comment 12). The Board notes that these general recommendations on Licence Conditions were not raised until review of the draft Licence, and there is no evidence previously on the record to support the recommendation. As such, the related Conditions have not been changed from the draft Licence.

In review of the draft Licence, IEMA noted that Arctic had indicated its intent to use roads along the Point Lake WRSA as containment structures for seepage and collection. IEMA pointed out that Part F, Condition 4 requires delineation programs for containment structures and diversion channels, and recommended it apply to the Point Lake Development (IEMA comment 11). Arctic responded that it understood the intent of this Condition to address isolated linear water diversion or containment structures, such as the Pigeon Stream Diversion. Arctic noted the subsurface conditions and investigations related to the Point Lake WRSA Seepage Collection System might rely on the Lac du Sauvage road, but these requirements would be addressed in requirements for the WRSA Design Report. Arctic did not see rationale or value in requiring an additional report under Part F, Condition 4 in this situation. The Board notes that Arctic referred to Schedule 5, Condition 2(b)(i), (ii), (iii), and (xix) as covering requirements of Part F, Condition 5 in its response to IEMA's review of the draft Licence. The Board believes Arctic's rationale is appropriate, and that if the Lac du Sauvage road is used as a part of the WRSA Seepage Collection System, the requirements for the WRSA Design Report do apply. As such, Part F, Condition 5 is unchanged.

In review of the Draft Licence, the TG recommended the permit or licence include a condition requiring Arctic to develop a three-dimensional visualization tool and a three-dimensional physical model of the WRSA(s) and overburden pile design and make these tools accessible to any Party that requests them (TG comment 3). Arctic responded that it had developed three-dimensional computer visualizations of the Point Lake area and WRSA Design variations but did not support a recommendation to prescribe visualization tools as a condition due to varying and evolving needs of each Project through the design process. The Board recognizes that Arctic has already developed three-dimensional visualizations for use in engagement and that the WRSA(s) and overburden pile design is still evolving. The Board strongly encourages Arctic to ensure that meaningful engagement with all affected Parties is taking place and thoughtfully consider all reasonable requests from Parties.

#### ***6.6.1 Point Lake WRSA(s) and Overburden Pile Design Plan***

Schedule 5, Condition 2 contains a list of items required for submissions of Waste Rock Storage Area Design Plans. Schedule 5, Condition 2(b) includes requirements specific to the Point Lake Project WRSA(s) and Overburden Pile, which is to be submitted in one Design Plan.

Part F, Condition 3 and Schedule 5, Condition 2 previously referred to a "Waste Rock Storage Area Design Report". This title has been changed to a "Waste Rock Storage Area Design Plan" to reflect current Standard Water Licence conditions. The Board would like to clarify that this Condition still applies to previously submitted Waste Rock Storage Area Design Reports.

In its Intervention, the TG recommended the Point Lake WRSA(s) and Overburden Pile have the following four characteristics: maximize space available for caribou migration through the tundra; be as far away from the esker as possible; fit into the surrounding terrain and built as low as possible; and after remediation, be accessible to caribou like natural hills. The TG recommended Arctic collaborate with the TG to optimize the design of these piles with Tłıchǫ TK. Arctic responded that a number of WRSA design variations had been developed to address engagement feedback, and would continue engagement on the final design including a site visit in May/June 2022 and submission of a WRSA Design Report for Board approval. At the Hearing, the TG asked Arctic about its willingness and ability to make the piles be accessible like natural hills at closure. Arctic responded that there was currently an approved objective regarding making ramps in the latest approved closure plan, and that it was now noted each waste rock pile needed to be considered in terms of accessibility on a case-by-case basis. Arctic noted that an end land use plan as part of the interim CRP would guide selection of appropriate and acceptable closure criteria. The TG asked for assurance on a timely process for setting these criteria, and Arctic responded that it could consider potential closure options and thoughts into the design. The TG also asked if Arctic would find it problematic for a Licence or Permit condition to require remediation of the waste rock piles to become “like natural hills with gentle slopes and a smooth surface”. Arctic noted that its concern would be if the condition were too specific, and in the end the design might not be what the TG wanted. Arctic noted that if a Licence Amendment were needed to change such a condition, it could be problematic and take up to a year to change.<sup>78</sup> In its comments on the Draft Licence, the TG recommended the characteristics identified in its Intervention be explicitly mentioned in the Licence or Permit, noting it could be a requirement of the WRSA Design Report. The TG also noted it wanted to update its recommendation regarding the distance of the esker from the piles, and to be changed from “as far away from the esker as possible” to “far enough away from the esker to protect the wildlife habitat on and around the esker”; the TG noted that a 200 metre setback might be too firm of a number at this stage (TG comment 1). Arctic responded that TG’s stated change “illustrates why it is not appropriate for all recommendations to be written as conditions in the body or a schedule of the Licence.” Arctic noted a workshop would be held on the WRSA design in February 2022. Arctic also noted that specific design details would be provided in the WRSA Design Report. In its Closing Arguments, the TG highlighted the importance of protecting caribou habitat, and that these WRSA objectives (i.e. the four characteristics outlined in the TG’s Intervention), reflected this importance. The TG noted that the objectives were high level enough to not unduly burden Arctic’s resources. The Board notes that caribou habitat impact has been a concern raised by multiple Parties through this Proceeding. Mitigations to this impact were identified in the Preliminary Screening, but including these objectives can ensure Parties’ concerns are reflected in the Licence and give other Parties the opportunity to provide input into design details. The Board does not find these objectives to be restrictive to Arctic. As such, the Board has included these objectives in the final Licence WRSA Design Plan schedule requirements for Point Lake. The Board has decided that these objectives convey the expectations of Parties and the Board and agrees with the TG that they will not hinder Arctic in preparing its WRSA Design Plan.

---

<sup>78</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pgs. 175-181.  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 32 of 68

In IEMA's Intervention and Closing Arguments and the TG's review of the Draft Licence, recommendations were made for an alternatives analysis for the waste rock and overburden storage siting and design (TG comment 2). The TG specifically noted that the alternatives assessment was an ideal process for refining the configuration of the WRSA(s) and noted the process would be informed by engagement and the Elder's site visit. Arctic responded to IEMA that the Point Lake Project was only economically viable with waste rock and overburden placement at the Point Lake site, and a re-evaluation of locations for waste rock and overburden placement away from the Point Lake site is not possible, as those approaches were not economically feasible for the Project. Arctic responded to the TG that it did not support the recommendation, noting that the methodology for options analysis should be selected to fulfill and evolve with the needs of the Project. Arctic noted specific design details would be provided to the Board for approval in the WRSA Design Report. In its Closing Arguments, Arctic again stated it did not believe a full alternatives analysis on WRSA is necessary or appropriate, and that Arctic would "continue to engage with the intent to advance to a final design concept that best reduces risks to caribou while remaining logistically and economically feasible." The Board understands that engagement on the Point Lake WRSA(s) design has continued throughout this proceeding and will continue following the issuance of the Licence. The Board notes an alternatives analysis can demonstrate how Arctic has worked with Parties in maximizing effectiveness of the WRSA and overburden pile design. As such, an alternatives analysis should demonstrate the options considered based on this feedback and demonstrate rationale for the preferred option and the options that are not selected. The Board has included a schedule requirement in the WRSA Design Report for providing alternatives analysis for the WRSA(s) and overburden storage siting and design. The Board does not believe a "full alternatives analysis" is necessary, and as such the Licence requirement is specifically intended to ensure an options analysis that clearly outlines how feedback gathered through engagement has been considered. Parties provided technical guidance references in their recommendations that could be consulted by Arctic in conducting this alternatives analysis.

In review of the Draft Licence, TG recommended that the Licence include a requirement for "Arctic to demonstrate how the WRSA design has used Traditional Knowledge and Western science to maximize ekwò movement through the tataà" (TG comment 11). The TG recommended a report that holistically describes how the footprint, height, and location of the waste rock and overburden piles maximize caribou movement, noting this requirement could be added to the WRSA Design Report or as a stand-alone report. Arctic responded that the Licence Amendment required reporting on the use of Traditional Knowledge in a manner that applies to the Point Lake Project and outlined the relevant Licence requirements. Arctic noted it did not believe there was rationale for additional conditions that require further reporting on the use of TK. The Board notes that concerns regarding the adequate use of Traditional Knowledge were raised in the Preliminary Screening, and had noted that if deemed appropriate the Board may "also consider the need for other TK-Related requirements", including Design Report schedule requirements.<sup>79</sup>

---

<sup>79</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Preliminary Screening Determination and Reasons for Decision – Aug 24 21](#); Pg 43

Given the concerns raised during the Proceeding, and Arctic's commitments to understanding and addressing gaps in the use of TK for the Project, the Board believes this recommendation is best addressed as a WRSA Design Report requirement, and has added it to the Licence.

In review of the Draft Licence, Arctic noted there were duplicative requirements in Schedule 5 and Schedule 6 regarding detailed seepage water quality predictions to be provided in the Point Lake WRSA Design Report and WRSA Seepage Prediction Report respectively, and WRSA Design Report requirements that were better suited to the Seepage Prediction Report (Arctic comments 8, 9, and 10). Arctic recommended omitting the Schedule 5 condition and adding a new requirement to ensure the WRSA Design Report referred to the WRSA Seepage Prediction Report. Arctic also recommended consolidating requirements in the WRSA Seepage Prediction Report as appropriate. The Board agrees with these recommendations, and updated Schedule 5, Condition 2 (b) (xiv), (xvi), and (xviii) to reflect these changes. Schedule 5 Condition 2(b) (xiv) was revised, and (xvi) and (xciii) were moved to Schedule 6. The Board has also changed the timelines for these Plans to align with submission at least 90 days prior to Construction, as it believes they need to be considered by Parties at the same time for a comprehensive consideration of the WRSA(s) design.

Arctic commented that the Schedule 5, Condition 2(b) requirement for "a description of monitoring for subsurface flows within the active layer" is included in the preceding Condition regarding the description of the WRSA seepage collection system, and that the identification of unexpected seepage losses would address this requirement as these losses would be within the active layer. Arctic recommended removing the requirement for "a description of monitoring for subsurface flows within the active layer" (Arctic comment 11). The Board agrees with Arctic's rationale that identification of seepage losses would be within the active layer and has removed the duplicative condition.

IEMA recommended that the Schedule 5, Condition 2 requirement for description of the WRSA seepage collection system be revised to include "description of a groundwater monitoring system designed to detect and characterize any seepage that is bypassing collection systems (IEMA comment 19). Arctic responded that it believed the condition as written provided for monitoring and response to seepage losses and groundwater. The Board believes that the condition as written is sufficient, and notes that IEMA will have the opportunity to comment on the proposed groundwater monitoring system when the Point Lake WRSA Design Report is submitted and undergoes a public review.

The TG recommended that thermal modelling at the WRSA design stage was necessary to verify that PAG rock is expected to freeze, and if not, then to determine how seepage from PAG rock should be considered in the water quality modelling. The TG recommended that the Waste Rock Storage Area Design Plan for Point Lake specify that thermal modelling must confirm the thickness of the proposed cover and evaluate if internal heat generation could impact freezing of PAG rock and affect water quality predictions (TG comment 12). Arctic responded that a thermal freeze-back model was already required as part of the requirements for the Report, as well as reference and use of the Point Lake WRSA Seepage Prediction Report. Arctic also noted that a final cover design would be developed in the future based on operational

monitoring data and other relevant current information. The Board agrees with the TG that these important questions should be answered by the thermal modelling exercise, and has added these details to Schedule 5, Condition 2.

In its Intervention, the TG emphasized the importance of reducing the uncertainty about water quality during mining and after closure before the WRSA is built. The TG recognized that early approval of the WRSA cover may not be a good idea and recommended a separate cover design be submitted once operational data is available. In response to Undertaking 3, Arctic stated that it intends to provide a preliminary design of the Point Lake WRSA closure cover in the Point Lake WRSA Design Report and identified whether this preliminary cover would discuss the items identified in TG's Intervention. The Board recognizes that providing a preliminary cover design as part of the WRSA Design will reduce some uncertainty prior to construction and provide an opportunity for Parties and the Board to provide input on the proposed cover prior to the submission of the final design. The requirements of the WRSA Cover Design Plan are discussed in section 6.12.5.

The Board notes that the WRSA Design Plan may have implications to the closure cost estimate. The Board expects any implications to be identified with the submission and an updated RECLAIM estimate to be submitted if appropriate. This will allow the Board to ensure sufficient security is held prior to WRSA Construction.

## **6.7 Part G: Conditions Applying to Modifications**

Part G of the Licence contains conditions related to Modifications of Engineered Structures associated with water use or Waste Disposal.

In its review of the draft Licence, IEMA recommended that in addition to the As-built Drawings required by Part G, Condition 3, any QA/QC data and details of decisions made or deviations that arose should be included with the submission. IEMA made this recommendation in final argument and did not provide any evidence earlier in the Proceeding to substantiate the need for this change. As such, the recommendation has not been incorporated in this amended Licence.

## **6.8 Part H: Conditions Applying to Waste Disposal and Schedule 6**

Part H and Schedule 6 of the Licence contain conditions applying to Waste disposal activities for the Project. Project-specific conditions were developed where necessary.

### ***6.8.1 Effluent Quality Criteria***

GNWT-ENR commented that there was confusion as to which set of EQC applied to the Point Lake Development based on Part H, Condition 15, specifically during dewatering. GNWT-ENR recommended the EQC that apply to the Lynx and Misery developments also apply to the Point Lake development (GNWT-ENR comment 3). Arctic responded that there was no operational Discharge of minewater from the Point Lake site to the Receiving Environment, and therefore there was no direct linkage between Point

Lake minewater and EQC. Arctic did not object to linking the Point Lake site to the EQC for SNP Station 1616-43 (the discharge from the King Pond Settling Facility), and suggested the wording for Part H, Condition 15(b) be updated to reflect inclusion of the Point Lake Development. The Board agrees with Arctic's proposed update to ensure Point Lake minewater meets EQC prior to Discharge to the Receiving Environment and has made the revision to Condition 15(b). As discussed below, additional evaluation of the EQC at SNP Station 1616-43 is needed before Point Lake minewater is discharged from this location.

In its Application, Arctic noted that the Project would not create new final Discharge locations or require changes to existing EQC.<sup>80</sup> During the Proceeding, it was noted that parameters of potential concern (PoPCs) had been identified in the geochemistry of Point Lake metasediment for which there were no Effluent Quality Criteria for Discharge from the KPSF.<sup>81</sup> PoPCs are often a starting point for investigating need for any EQCs. Arctic submitted a memo presenting the results of the SFE and NAG tests on October 19, 2021. These results were supposed to be provided as part of IR responses that went for public review. However, these results were submitted after a public review of IR responses had commenced. This was due to timing issues with providing the results. Because Parties did not get an opportunity to fully review Arctic's memo before submitting their Interventions, Interveners were asked at the Hearing if they would like to see more discussion about PoPCs and the need for additional EQCs at the KPSF. Interveners responded they would like to see more discussion on this topic.

During the Hearing, Arctic noted predictions of seepage quality and PoPCs from the Point Lake waste rock would be provided in the Point Lake WRSA Design Report. Arctic indicated that metasediment waste rock was not scheduled for deposit in 2022, and that the upcoming Licence Renewal process would be able to provide a process for the EQC discussion.<sup>82</sup> Arctic said the KPSF had been drawn down to its lowest possible level to allow for numerous years of containment capacity, and there were other contingencies available should testing be significantly different than expected.<sup>83</sup>

The Draft Licence included Part H, Condition 28 that would require the submission of an Effluent Quality Criteria Report for the KPSF after Point Lake seepage has started to be added to the KPSF, and for Arctic to show how the KPSF EQC are sufficiently protective of the environment. Part H, Condition 29 was included in the Draft Licence to ensure Discharge from the KPSF did not occur after the addition of Point Lake seepage until approved by the Board. In its review of the Draft Licence, GNWT-ENR recommended a specific timeframe be associated with the submission of the EQC Report, as one was not included in the Draft Condition (GNWT-ENR comment 6). GNWT-ENR also noted that the seepage quality from the Point Lake WRSA may worsen over time, and that it may be prudent to require a regular assessment of the suitability of the EQC. Arctic replied that it believed Part H, Condition 29 addressed the timeframe as Discharge would not be allowed until approved by the Board, which would ensure timely submission of

---

<sup>80</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Point Lake – Amendment Application – May 31 21](#)

<sup>81</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg.155

<sup>82</sup> *Ibid* pg.157

<sup>83</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg. 160-161

the EQC Report. Arctic also noted that the purpose of the EQC Report was to evaluate the need for and, if necessary, propose additional or amended EQC for SNP Station 1616-43 related to the Point Lake Project, and did not find rationale for a recurring submission. The Board agrees with Arctic that the intent of Part H, Condition 29 was to ensure the Report required under Part H, Condition 28 is submitted in a timely manner, and if changes to EQC were being proposed that this submission would form part of an amendment application. As such, the Board has not changed Part H, Condition 28 at this time.

In review of the Draft Licence, Arctic expressed concern with the Condition requiring submission of a report on Effluent Quality Criteria in the KPSF after addition of Point Lake Seepage (Part H, Condition 28 (Arctic comment 5). Arctic noted that the requirement was not specific and may not adequately address reviewer concerns. Arctic also stated that the last sentence of the Condition appeared at odds with the Board's previous determination that the existing EQC for SNP Station 1616-43 are sufficiently protective of the environment as determined through the Board's review and approval. The last sentence of the Draft Condition states "The Licensee must demonstrate Effluent Quality Criteria for the King Pond Settling Facility are sufficiently protective of the environment." Arctic proposed the sentence be revised to state "The Licensee must demonstrate that proposed additional or amended Effluent Quality Criteria for the King Pond Settling Facility are sufficiently protective of the environment." The Board recognizes that it was previously determined that the existing EQC for the KPSF were sufficiently protective of the environment based on the anticipated inputs to the KPSF at that time. With the potential for seepage from the Point Lake WRSA which has PAG rock, the Board is of the opinion that a careful evaluation of what EQC are necessary to protect the environment is appropriate once these new seepage inputs are being stored in the KPSF. Part H, Condition 28 requires Arctic to demonstrate whether existing and proposed EQC are sufficiently protective once Point Lake seepage has started to be added to the KPSF. As such, the Board has not revised the condition at this time.

In review of the Draft Licence, FRMG stated a concern with no indication of quality constraints for Indigenous-defined parameters or cultural criteria for Effluent Quality Criteria and recommended that the licence include Indigenous-defined parameters, criteria, and thresholds (FRMG comment 10). Arctic responded that it believed the recommendation was out of scope for this Amendment. The Board notes that the Effluent Quality Criteria provided in the Licence have been developed over the course of multiple Proceedings for the Ekati mine site, with input from stakeholders including Indigenous organizations and governments. This recommendation was not raised until the review of the Draft Licence and in order for any Party to propose EQC, the supporting information must be provided in a manner that would ensure all Parties had adequate opportunities to consider it. The Board has required Arctic to provide a report on Effluent Quality Criteria as per Part H, Condition 28 for Board approval. The Board is of the opinion that this is an appropriate mechanism and opportunity for all Parties to provide feedback on proposed EQCs related to the Point Lake Project.

Arctic also recommended that the Point Lake WRSA Design Plan requirement for evaluation of water quality in the KPSF include the potential need for additional or amended EQC at SNP station 1616-43 as a precursor to the report required under Part H, Condition 28 (Arctic comment 12). Arctic provided

recommended wording for the requirements that the evaluation recommend “whether technical studies are necessary to propose amended or additional EQC”. The Board is of the opinion that Part H, Condition 28 addresses Arctic’s recommendation related to an evaluation of water quality and potential EQC. The Board also notes that the Point Lake WRSA Design Plan requirement Arctic commented on is related to quantity and capacity, and as Arctic’s recommendation was related to water quality has retained that requirement at this time. The Board recognizes that Arctic will either be demonstrating that no changes are needed to the EQC at 1616-43 or an amendment will be needed, so has revised this condition to require Board approval.

In its review of the Draft Licence, IEMA recommended that Condition 15 clearly state which EQC parameters apply to the Point Lake Development and noted that the Condition in the Draft Licence did not appear to capture seepage from the overburden pile (IEMA comment 15). DKFN also requested clarification on which condition would apply to the collection and monitoring of surface runoff water from the overburden stockpile (DKFN comment 2). The TG recommended that given the overburden testing results provided by Arctic (as part of Undertaking responses), consideration could be made to include collection of seepage and runoff from the overburden pile. The TG recommended that if Arctic were able to demonstrate that overburden seepage did not have to be collected, there is flexibility in the condition to allow the Board to authorize Arctic to stop this collection (TG comment 19). In the Draft Licence, Part H, Condition 14 requires all minewater from the Point Lake Development, with the exception of the overburden stockpile, to be directed to the KPSF and/or Lynx Pit, unless otherwise approved by the Board. The collection of seepage from the overburden pile was not proposed by Arctic in its Application. In response to Parties, Arctic noted that the material placed into the Overburden Stockpile will not include metasediment and is not considered a water quality risk. Arctic stated that seepage would be monitored and regulated under the Metal and Diamond Mining Effluent Regulations (MDMER) and monitored as per the WRSA Seepage monitoring program in accordance with the WROMP. The Board notes that the recent version of the WROMP (V 10.1) was not approved, and there are differences in how seepage is considered under the Licence and the MDMER with respect to entering the “receiving environment”. Arctic also indicated during the Public Hearing that there was new acid base accounting testing for Point Lake overburden underway.<sup>84</sup> There is uncertainty regarding the quality of Point Lake overburden seepage and runoff, new testing results that were ongoing during proceeding, and IEMA, DKFN, and TG raised concerns with allowing this effluent to enter the receiving environment. The Board notes that Arctic will have the opportunity to demonstrate that this seepage and runoff does not pose a risk to the receiving environment, and may cease collection upon Board approval as per Part H, Condition 14. As such, the Board has not included the exemption for collection of Point Lake overburden seepage and runoff in Part H, Condition 14.

### **6.8.2 Humidity Cell Testing**

---

<sup>84</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg. 62.



GNWT-ENR recommended that Part H, Condition 27 (of the publicly reviewed Draft Licence) regarding HCT be conducted on Point Lake metasediment with 95<sup>th</sup> percentile solid content/leachate statistics, and recommended it be revised to clarify the intent is for HCT on such material to be initiated, and for the number of HCTs to be specified as a minimum of one additional test (GNWT-ENR comment 4). Arctic responded that it did not have a sample of Point Lake metasediment that satisfied the 95<sup>th</sup> percentile criteria, and that it believed it unlikely that such a sample would be identified during Point Lake open pit mining. Arctic recommended that the condition be removed from the Licence, and instead a requirement be added to the Waste Rock and Ore Management Plan schedule requiring a description of a procedure regarding the identification and testing of such material (Arctic comment 3). Arctic noted that it was very rare to find a rock sample with the highest concentrations of every constituent that is measured in the laboratory for all solid phase and leachate constituents. Arctic's suggested revision allows for the testing of 95<sup>th</sup> percentile solid content/leachate Point Lake metasediment if it is identified during mining. The Board is of the opinion it allows for GNWT-ENR's recommendation to be incorporated in the Licence in a more flexible way. The Board has incorporated Arctic's recommendation to the WROMP Schedule 6, Condition 2 and removed the related condition.

With respect to Part H, Condition 27 (of the final Draft Licence), which requires Arctic to provide rationale for Board approval for stopping any HCTs of Point Lake metasediment, Arctic commented that the WLWB review process should not require "potentially unnecessary expenditure of Arctic funds for on-going operation and testing of humidity cell tests that may warrant termination" (Arctic comment 4). Arctic recommended that the condition be revised to allow for the Licensee to temporarily pause testing during the review process. The review process of such a submission is typically 2-3 months, and the Board is often able to prioritize submissions depending on their implications to operations. The Board understands that the pausing of HCTs is not an industry standard, and that there may be implications for interpretation of data if HCTs were paused and required to be restarted. There may also be impacts to the usefulness in predicting when PAG rock leachate becomes acidic. Given that this is essential information for the Point Lake WRSA Design and Cover Design, and the predominantly PAG nature of the Point Lake metasediment, the Board has decided that there may be risks in potentially affecting Water Quality predictions and subsequent designs by pausing the HCTs. As such, the Board has not revised the Condition and encourages Arctic to inform the Board in its cover letter of any implications and time sensitivity.

### ***6.8.3 Pegmatite Testing***

In its Intervention, GNWT-ENR noted that the amount of pegmatite to be placed in the metasediment Point Lake WRSA is estimated to be around 1%. GNWT-ENR also noted that results from the SFE and NAG testing suggested that this pegmatite may have different leaching characteristics than other Ekati site deposits. GNWT-ENR recommended that if the estimated pegmatite volume increased during site evaluation, completion of an HCT on the Point Lake pegmatite should be considered. The TG's Intervention also included a recommendation that it should be confirmed during mining that pegmatite was only 1%. Arctic responded to these Interventions that it was confident that the volume of pegmatite was in the order of 1% and would not have an identifiable effect on WRSA seepage quality. Arctic also noted that due to the small percentage, it would be impossible to record the actual volume of pegmatite mined. At W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 39 of 68

the Hearing, GNWT-ENR asked Arctic to confirm the sampling frequency proposed for pegmatite.<sup>85</sup> Board staff also asked why it would be unable to measure the volume of pegmatite in the waste rock.<sup>86</sup> Arctic responded that due to the small quantity of pegmatite, it would not be distinct and identifiable as an individual rock type.<sup>87</sup>

At the Hearing, Board staff asked the TG to confirm what it meant from its Intervention by “recommended that the Board require Arctic to address the issue of pegmatite in the Waste Rock and/or Storage Management Plan.” The TG responded that it was its recommendation that the company should verify that the pegmatite rock is not going to be a problem as it has metals in it at higher levels. TG suggested that a geologist might recognize this rock and could visit the mining site to see how much pegmatite is there.<sup>88</sup> Board staff also asked GNWT-ENR if it had a recommended trigger for when completion of an HCT on pegmatite should be conducted. GNWT-ENR responded that there was monitoring that could be done to estimate whether or not the pegmatite estimate was as expected, possibly through visually monitoring. GNWT-ENR noted there was not a set guideline for what volume or percentage should trigger this testing, and that “at 1%...based on experience, I wouldn’t be that concerned”, but that if it started to get into 5 to 10%, it would become more of an issue.<sup>89</sup>

Given the recommendations from Parties, the Board included a requirement in Schedule 6, Condition 2 of the Draft Licence for the Waste Rock and Ore Storage Management Plan to include a description of a confirmatory process and field inspection program to verify pegmatite volumes, and a description for testing that would be conducted if pegmatite volumes were greater than 5% of the Point Lake Waste Rock. In review of the Draft Licence, the TG recommended that the Board consider whether a 1% action level should be set as an early warning (TG comment 15). Arctic responded that it did not object to the 5% threshold that had been proposed in the Draft Licence and noted that “defensible monitoring for proportionally very small volumes of a single rock type within the mass of waste rock is very challenging.” Arctic said it could commit to monitor and report defensibly against a 5% threshold but not 1%. Based on GNWT-ENR’s assessment and Arctic’s response, the Board has decided the requirements in the Draft Licence for pegmatite testing are suitable and defensible and has not revised them at this time.

#### **6.8.4 Schedule 6**

DKFN noted that the Licence Schedule for the WROMP included the addition of characterization and rationale for changes to the approved overburden monitoring program for Point Lake and recommended additional details on what items and conditions would be addressed by the program (DKFN comment 7). Arctic responded that as per the IR #14 response from the Technical Workshop, Arctic committed to

---

<sup>85</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pgs. 81-82

<sup>86</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg. 165

<sup>87</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 81-82; [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg 165

<sup>88</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 3 Transcript – Nov 25 21](#); pg 86

<sup>89</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – Day 4 Transcript – Nov 26 21](#); pg 69; Mike Venhuis, expert for GNWT: [Ekati – Point Lake Project – Amendment Application – Public Hearing – Expert CVs – Nov 23 21](#)

confirmatory sampling for the Point Lake Overburden. Arctic intends to write this commitment in the update to the WROMP for inclusion of the Point Lake Project. The Board notes that as per Part H, Condition 3, Arctic will be required to submit a revised WROMP for approval, and Parties will have the opportunity to further comment on any changes to the approved overburden monitoring program for Point Lake. Arctic previously identified the planned overburden sampling process in response to IR #14. For these reasons, no further details have been added to the Schedule at this time.

In review of the Draft Licence, IEMA noted the WROMP should be inclusive of waste rock predictions for the Point Lake Project linked to the MEND 2009 document, and that the removal of the Jay Project from the section suggested it was not linked. IEMA recommended the MEND 2009 document apply to the Point Lake Project (IEMA comment 22). Arctic responded that it considered the previous Licence reference to the MEND 2009 document to be specific to the Jay Project, and that it had not re-visited that rationale or decision to evaluate whether it should apply to the Point Lake Project as a Licence requirement. Arctic objected to the recommendation without supporting work on implications and rationale. The Board notes that the rationale for using the MEND reference for Jay was, as stated by Dominion Diamond: “The more recent MEND (2009) criteria were used in place of the Department of Indian Affairs and Northern Development (DIAND; 1992) criteria, as they are considered to represent the current standard of practice and the criteria are consistent with other geochemical characterization guidance documents such as the Global Acid Rock Drainage (GARD) Guide (INAP 2009).”<sup>90</sup> In the absence of Arctic providing rationale for why MEND may not be appropriate, and a recognition that MEND is the current industry standard, the Board is requiring that Point Lake follow the relevant guidance from MEND as required by Schedule 6, Condition 2. Arctic may request a revision to Schedule 6, Condition 2 with evidence to support why MEND may not be appropriate for Point Lake, if necessary.

IEMA also recommended that the wording of Schedule 6, Condition 2(c) include reference to use of Effective Neutralizing Potential in Acid Rock Drainage calculations (IEMA comment 23). Arctic objected to the recommendation for including wording for use of Effective Neutralization Potential and stated it believes it was out of scope for this Amendment. The Board notes that the use of effective NP has been an ongoing discussion between IEMA and Arctic.<sup>91</sup> The Board is of the opinion that the WROMP and CRP are more appropriate mechanisms for continuing the discussion of the use of Effective NP on a site-wide and has not revised the schedule requirement at this time.

IEMA recommended that the detailed descriptions and locations of Solid Waste and Sewage disposed of within the Waste Rock Storage Area be updated to include overburden storage areas (IEMA comment 24). Arctic responded that Solid Waste and Sewage Sludge are not disposed of at overburden stockpiles, and that this practice was not planned. Arctic also noted that regardless, this would require Board approval

---

<sup>90</sup> See WLWB Online Registry for [Ekati Jay Project - Response to IRs - DDEC - Oct 28 16.pdf](#) ; pg. 55

<sup>91</sup> See WLWB Online Registry for [Ekati – WROMP – 2019 Seepage Survey Report and WROMP V11 – Reasons for Decision – Mar 15 22](#)

through the Waste Management Plan. The Board agrees with Arctic's assessment and has not revised the condition at this time.

In review of the Draft Licence, IEMA recommended Schedule 6, Condition 2 (l) be revised to include reference to Point Lake metasediment (IEMA comment 25). Arctic responded that it believed the language of the Condition was already inclusive of Point Lake metasediment and did not require amendment. The Board agrees that "other Waste Rock types that may be identified as problematic", can be interpreted to include Point Lake metasediment, but has decided that given the concerns identified regarding the PAG nature of the metasediment, added clarification is warranted and has revised the condition accordingly.

In its Intervention, GNWT-ENR stated that the memo provided on October 19, 2021 by Arctic with respect to SFE and NAG testing, indicated a change in NAG pH values between years. In the memo, Arctic described the investigations to evaluate this change but found no obvious source. GNWT-ENR pointed out that the change could be an indication that NAG pH decreases over time and that could have implications for expected seepage water quality. GNWT-ENR recommended that Arctic perform additional testing (e.g., sequential NAG testing) and/or investigations to determine the cause of the differences in NAG pH. Arctic responded that an investigation into the consistently lower NAG values was already conducted but that the potential for ARD from the material would be updated with geotechnical information gained from the HCT analysis. At the Hearing, GNWT-ENR asked Arctic if it would be willing to conduct additional testing to investigate the change in characterization of the NAG leachates to ensure that complete acid generation potential has been measured and resolve the uncertainty. Arctic responded that the discrepancy would be evaluated using the HCTs, and that they included one sample that had inconsistent NAG pH results. To reflect this, the Draft Licence included Schedule 6, Condition 6 (b)(ii), requiring an investigation into the cause of consistently lower pH values in 2021 samples compared with 2019 samples. Arctic recommended this condition be omitted, and that it found there to be "no technical merit in further investigation of the topic", and that initiation of HCTs reinforced that view. Arctic indicated that if the Board preferred to keep the requirement, it suggested the wording be revised to be specific to Point Lake metasediment (Arctic comment 21). As Arctic had previously indicated one of the HCTs would be used to evaluate the discrepancy, the Board has retained the condition but revised it to be specific to the Point Lake metasediment as per Arctic's suggestion.

In review of the Draft Licence, Arctic recommended revisions to Schedule 6, Condition 6 to be specific to the Point Lake WRSA (Arctic comments 17 and 18). The Board notes that the intention was for Schedule 6, Condition 6 to be specific to the Point Lake WRSA, so has incorporated the revisions as suggested.

Arctic also pointed out that the Draft Schedule 6, Condition 6(b)(iii) requiring a comparison of parameters of potential concern from Point Lake WRSA seepage, was unclear (Arctic comment 22). Arctic noted it intended to re-generate a list of PoPCs as part of the Point Lake WRSA seepage predictions and recommended changing the wording to "identification of parameters of potential concern." The Board has accepted this recommendation.

Arctic recommended the “updated concentrations” from Draft Schedule 6, Condition 6(b)(iv) (WRSA Seepage Prediction Report) be omitted as it was unclear, and all data was already required under “inclusion of results from Humidity Cell Tests” (Arctic comment 23). Arctic also noted that its intent for the Point Lake WRSA Seepage Prediction Report was to provide all data from the humidity cell tests, and that as such the requirement to provide concentrations measured in the initial five weeks of the HCTs was unnecessary (Arctic comment 24). Arctic also recommended that the “inclusion of results from Humidity Cell Tests” be revised to “inclusion of all data and test results used in the report, including results from Humidity Cell Tests” to ensure all data used is provided (Arctic comment 25). The Board agrees that Arctic’s suggestions are clearer and more useful, and has revised Schedule 6, Condition 6 requirements accordingly.

Arctic also noted that the Shake Flask Extraction test results conducted during the proceeding were useful in the determination to start HCTs of Point Lake metasediment, but that HCTs would be the dominant data source and that they were more rigorous (Arctic comment 19). Arctic stated it didn’t see benefit to further interpretation of those results, and that a revision of the previously submitted SFE memo was not necessary or beneficial. Arctic recommended revising the title of the report under Schedule 6, Condition 6(b) to “Point Lake Metasediment Net Acid Generation Report”. Arctic also recommended that Schedule 6, Condition (b)(i) be revised from “results of additional testing” to “discussion and application of Shake Flask Extraction test results” to reflect this (Arctic comment 20). Arctic also pointed out that it was not aware of reviewer recommendations for additional SFE tests. The Board agrees with Arctic’s suggestions and has revised the Licence accordingly.

In review of the Draft Licence, Arctic stated that Schedule 6, Condition 6(c) requiring comparison of water quality predictions to closure criteria was duplicative of Schedule 5, Condition 3 (g) (now Schedule 9, Condition 2 (g), which requires updated water quality predictions for the Waste Rock Storage Area Cover Design using operational data, and recommended it be removed from Schedule 6. The Board notes that Schedule 6, Condition (c) is for submission of the Point Lake WRSA Seepage Prediction Report within 90 days of Licence issuance, whereas Schedule 9, Condition 2 is for submission of the Waste Rock Storage Area Design Plan, at least 90 days prior to commencement of Construction of the cover. It is unclear to the Board how these requirements are duplicative as Schedule 6 requires a comparison to criteria, whereas Schedule 9 requires updated predictions, and the submissions have different timelines and expectations. As such, the Board has retained the Schedule 6, Condition 6(c) requirement in the Licence at this time.

#### Part H: WASTE MANAGEMENT PLAN - REVISED

All applicants must submit detailed waste management information, identifying all types of waste that will be produced by the project (including quantity and quality) and describing the disposal methods that

are proposed for each type of waste. For most applicants, this will be in the form of a Waste Management Plan (WMP), developed in accordance with the MVLWB [Guidelines for Developing a Waste Management Plan](#), and licences and permits will include standard conditions regarding compliance with the Plan, as approved by the Board. The Guidelines can be applied to a wide range of projects and are intended to ensure that all waste management activities are carried out in a way that is consistent with best practices and applicable guidelines to minimize waste released from a project.

The Applicant included Version 8 of the WMP with the Applications which had been revised to include the Point Lake development.<sup>92</sup> The Board considered this Plan as part of the Application Package.

In its Intervention, IEMA noted that Jay Measure 9-1 required Arctic to conduct incinerator testing every three years, and to submit the results to the GNWT. The Incinerator Management Plan within the approved Waste Management Plan Version 7.0 states that “In the previous version of this Plan, Dominion committed to stack testing every three years and completing a third round of stack testing prior to November, 2019. Due to the delay of the Jay Project, as well as the significant reduction in incineration at the Ekati Diamond Mine, Dominion did not complete this testing in 2019. Dominion will continue to work with the GNWT Environment and Natural Resources to determine the timing of the next stack test at Ekati mine.” IEMA noted that waste is still incinerated at Ekati, but that to comply with Jay Measure 9-1 on a site-wide basis, the Incinerator Management Plan should be updated to incorporate stack testing and adaptive management requirements. Arctic responded that it would continue to work with GNWT on timing of future stack emissions at Ekati, but given previous stack testing results, addition of an industrial composter, and reduction in overall activity and incineration at Ekati, it didn’t believe additional stack testing would produce significantly different results. At the Hearing, IEMA noted the last incinerator stack testing was conducted in 2016, and asked GNWT if it was aware of any best management practices for frequency of stack emissions testing on waste incinerators of the type used at the Ekati site. GNWT-ENR responded that it was not aware of any best management practices, and that requirements to determine regulatory compliance varied. GNWT-ENR recommended that stack emission testing be conducted at a minimum, every three years, and that this requirement be included in the Ekati Incinerator Management Plan. GNWT-ENR noted this recommendation was made in alignment with previous commitments from Arctic, frequency requirements in other jurisdictions, and that stack testing should be done as the incinerators aged. In review of the Draft Licence, IEMA noted that a requirement should be added for the Waste Management Plan to have incinerator stack testing conducted every three years (IEMA comment 7). Arctic responded that it provided a commitment to continue diligent air quality monitoring as appropriate to Point Lake and objected to recommendations for changes that were not related to the incorporation of the Point Lake Project. The Board is of the opinion that based on IEMA and GNWT’s recommendations, Arctic’s previous commitment to conduct stack testing every three years, and the commitment to conduct stack testing every three years being in the approved Incinerator Management Plan, there is sufficient evidence to require incinerator stack testing every three years. The Waste

---

<sup>92</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Waste Management Plan Version 8 – May 31 21](#)  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 44 of 68

Management Plan is a site-wide plan that also applies to Point Lake. To ensure that results are communicated and the GNWT is kept informed of the timing of stack testing, the Board requires version 8.1 of the Waste Management Plan to be submitted within 60 days of the issuance date of the Licence. Version 8.1 of the Plan is to reflect that stack testing will take place every three years, and when the next stack testing will be conducted.

Arctic currently has an approved WMP (Version 8.0) in place for the Ekati site, which will remain in place until that time.

## **6.9 Part I: Conditions Applying to Contingency Planning**

Part I of the Licence contains conditions related to spill contingency planning and reporting, reclamation of spills and unauthorized discharges, and emergency response for the Project. These conditions are consistent with the Standard Licence Conditions.

### Part H: SPILL CONTINGENCY PLAN - REVISED

All applicants must describe spill contingency planning. For most applicants, this will be in the form of a Spill Contingency Plan (SCP), developed in accordance with the INAC [Guidelines for Spill Contingency Planning](#), and licences and permits will include standard conditions regarding compliance with the Plan, as approved by the Board.

Version 14.0 of the SCP is currently approved version of the SCP for the Ekati site. The Applicant included Version 15.0 of the SCP in the Applications.<sup>93</sup> The Board considered this Plan as part of the Application Package.

In review of the Applications, GNWT-Lands noted Figure 1 in the SCP did not identify the location of the proposed Point Lake development and recommended the figure be updated (GNWT-Lands comment 16). Arctic responded it would update Figure 1 to include the Point Lake development.

No further comments were received regarding the SCP during the Proceeding. Therefore, the Board has decided to approve Version 15.0 of the SCP because it satisfies applicable guidelines and Licence requirements. The Board requires Arctic to submit Version 15.1 of the SCP within 60 days of the issuance date of the Licence that includes a revised Figure 1 to include the location of proposed Point Lake development.

---

<sup>93</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Spill Contingency Plan Version 15 – May 31 21](#)

## 6.10 Part J: Conditions Applying to Aquatic Effects Monitoring and Schedule 8

Part J and Schedule 8 of the Licence contain conditions applying to the Aquatic Effects Monitoring Program (AEMP) for the Project. These are consistent with the MVLWB/GNWT [Guidelines for Aquatic Effects Monitoring Programs](#).

### 6.10.1 Decision to include Point Lake in AEMP

In its Applications, the Applicant noted that the Project would not create new final Discharge locations or require changes to existing AEMP monitoring programs. Arctic proposed new Surveillance Network Program (SNP) stations instead.

In review of the Applications, ECCC noted that the Point Lake Development has three nearby lakes (Connor, Alexia, and Thinner) that have the potential to be impacted by the Project (ECCC comment 3). ECCC noted that water quality monitoring may be more appropriately included in the AEMP rather than the SNP as the existing SNP did not include any active receiving environment monitoring locations. ECCC recommended the AEMP be updated to include environmental monitoring for Connor, Alexia, and Thinner Lakes. Arctic responded that the potential effect on water quality to the lakes was dust from blasting and there are mitigations in place. Arctic noted the required monitoring would be temporary with four to five years of mining activity. Arctic suggested that the SNP is an appropriate mechanism for monitoring and aligns with the limited scope and risk. In its Intervention, ECCC noted that the SNP stations for Connor, Alexia, and Thinner proposed with the application do not capture the long-term monitoring aspects of impacts to these lakes once mining was completed and drainage restored. ECCC recommended additional information on post-mining monitoring be provided if these lakes were to be monitored through the SNP.

FRMG recommended in its Intervention that the AEMP be revised to include effects to the Point Lake watershed downstream of Point Lake. FRMG noted that the scope of the AEMP includes monitoring of physical, chemical, and biological components of the aquatic ecosystem, while the SNP includes water quality in minewater management facilities and at discharge locations. Arctic responded that the AEMP did not need to be revised for the Point Lake Project, and that monitoring specific to assessing fisheries losses and offsetting would be determined in the *Fisheries Act* Authorization issued by Fisheries and Oceans Canada. During the Hearing, Board staff noted that FRMG's recommendation did not appear to be linked to fisheries losses, and it was unclear why Arctic believed that monitoring of physical, chemical, and biological components should not be required during the Point Lake Project. Arctic responded that it believed monitoring under the SNP would allow for monitoring for changes in water quality that may indicate the possibility of a change to other organisms, and then could start monitoring to look for changes in those lakes.<sup>94</sup> During the Hearing, FRMG asked GNWT-ENR for its thoughts on amending the AEMP to include monitoring in the Point Lake watershed. GNWT-ENR responded that it did not see an issue with the AEMP being amended to include project effects, and that generally the AEMP is more broad-reaching than the *Fisheries Act* Authorization. GNWT-ENR noted that there is precedent, and that is not uncommon

---

See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pgs 196-197.  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 46 of 68



to have areas like these incorporated into the AEMP.<sup>95</sup> Board staff also asked GNWT-ENR for its thoughts on how monitoring for potential effects to Alexia, Connor, and Thinner Lakes, could be reported and evaluated through the SNP. GNWT-ENR responded that the effects could be incorporated in the AEMP, and that the purpose of the SNP is typically to monitor specific points related to discharge. GNWT-ENR noted that evaluating the potentially more broad-reaching effects in an area makes more sense under an AEMP. The GNWT-ENR confirmed that it believed the AEMP needed to be updated to include Point Lake.<sup>96</sup> At the Hearing, GNWT-ENR asked DFO about any overlap between the AEMP and DFO *Fisheries Act* Authorization requirements as Arctic had noted that there would be monitoring requirements under the *Fisheries Act* Authorization to cover monitoring requirements. DFO responded that it could not speak to specifics as it had not yet received the application package, and there were no details for monitoring requirements available. DFO noted that the authorization would have specific monitoring requirements that are put in place to track how successful mitigations are or how successful offsetting is.<sup>97</sup>

The Board notes that Parties are generally supportive of the AEMP being revised to include Point Lake, and there were no recommendations made with respect to the inclusion of Point Lake downstream waterbodies in the Draft Licence for Schedule 8, Condition 1 (k) (viii). It remains unclear how the *Fisheries Act* Authorization monitoring would provide monitoring for effects typically monitored under the AEMP. No concerns were raised with the proposed timing of submission of the revised Plan or the inclusion of the Point Lake development, in general, in the revised Plan as outlined in the Draft Licence. The Board has decided to require submission of a revised AEMP Design Plan within six months of the issuance date of the Licence, as outlined in Part J, Condition 2. The Board is of the opinion that this timing will allow Arctic to align submission with the three-year submission as per Part J, Condition 4.

#### **6.10.2 Comments on AEMP Revisions**

In its Intervention, FRMG recommended that the AEMP for Point Lake be revised to include thresholds and triggers developed in collaboration with FRMG. In review of the Draft Licence, FRMG further recommended that clarity be added to Schedule 8 regarding the Response Framework and AEMP Design Plan and the engagement of Indigenous groups and use of traditional knowledge (FRMG comments 8 and 9). FRMG also recommended that additional objectives be added to the AEMP (FRMG comment 7). Arctic responded that the Amendment Application was for the purpose of incorporating the Point Lake Project, and it objected to recommendations for changes that were not directly necessary to achieve this. Arctic stated it found these recommendations out of scope for the Amendment. FRMG made these recommendations (FRMG comments 7, 9, and 9) in final review of the Licence and argument and did not provide any evidence earlier in the Proceeding to substantiate the need for this change. As such, the recommendation has not been incorporated in this Amendment. As determined above, the Board has decided to require the submission of a revised AEMP Design Plan to incorporate the downstream Point Lake watershed. As noted in Arctic's Engagement Plan, engagement related to changes to environmental

---

<sup>95</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Amendment Application – Day 4 Transcript – Nov 26 21](#), pg 54-56

<sup>96</sup> *Ibid.* pg 73-74

<sup>97</sup> *Ibid.* pg 87-88

management plans and programs includes the Aquatic Effects Monitoring Program Design Plan and Response Framework. The Board recognizes that when the AEMP Design Plan and Response Framework are submitted later in 2022, both the engagement by Arctic prior to submission and the public review of the Plan will provide an opportunity for Indigenous groups such as FRMG to provide input to the AEMP Design Plan and Response Framework.

In review of the Draft Licence, the TG noted that the schedule for the AEMP Design Plan included a new requirement for monitoring of lakes in the vicinity of the Point Lake Project to include, but not be limited to, Connor, Thinner, and Alexia Lakes. TG noted that Lac du Sauvage was only included as “Lac du Sauvage in the vicinity of the Misery Development”, and recommended the Board ensure the sites included Lac du Sauvage in the vicinity of the Point Lake Development (TG comment 20). Arctic responded that Lac du Sauvage was already monitored through the AEMP to evaluate changes related to discharge from the KPSF, which includes Point Lake Project minewater. Arctic noted that there is no release of effluent from the Point Lake site, and the nature of risks from open pit operations is very localized and did not find rationale for including additional AEMP monitoring in Lac du Sauvage. The Board notes that Figure 1.2-1 in the Point Lake Project Description indicates that the Point Lake Watershed areas drain to the vicinity of the current AEMP sampling locations LdS1 and LdS2, or through Connor, Alexia, and Thinner Lakes, which have been added to the monitoring sites required.<sup>98</sup> The Board has decided that sufficient monitoring locations are captured through the requirement in the AEMP to monitor Connor, Alexia, and Thinner Lakes.

In review of the Draft Licence, Arctic noted that the Draft Water Licence indicated that Connor, Alexia, and Thinner Lakes were to be monitored under the AEMP, which includes annual reporting through the the annual AEMP Report (Arctic comment 6). Arctic recommended that the previously proposed Schedule 1 for reporting on Connor, Alexia, and Thinner Lakes in the Annual Water Licence Report be omitted. As the Board has decided to require a revised AEMP Design Plan to reflect the inclusion of these lakes, it agrees with this recommendation and has adjusted the Schedule requirements accordingly.

#### **6.11 Part K: Conditions Applying to Closure and Reclamation and Schedule 9**

Part K and Schedule 9 of the Licence contain conditions applying to Closure and Reclamation, including Progressive Reclamation of the Project. Site-specific conditions were developed where necessary.

The conditions in this Section are closely related to the conditions applying to the security deposit (Part C of the Licence); the closure cost estimate and the security deposit are directly related to the activities described in the Closure and Reclamation Plan, and updates to the Plan may result in updates to the closure cost estimate and the security deposit.

---

<sup>98</sup> See WLWB Online Registry for [Ekati – Point Lake – Project Description – May 31 21](#); pg 126

In its Application, Arctic noted that the closure and reclamation activities and security estimate associated with the Point Lake Project were intended to be incorporated into the ICRP at an appropriate time, following approval for the Point Lake Project. A report within the Point Lake Project Description addressed proposed Reclamation and Closure Activities and the Reclamation Security Estimate for the Point Lake Project.<sup>99</sup> The Board observes that a three-month extension for the submission of ICRP V 3.1 was recently granted, allowing for an October 31, 2022 submission date.<sup>100</sup> The Board has decided this would be appropriate timing for incorporation of the Point Lake development activities into the ICRP V 3.1 to align reviews and reduce need for additional reviewer burden, and has therefore revised Part K, Condition 6 to reflect the timing of this submission.

#### **6.11.1 Use of Overburden**

In its Intervention, comments on the Draft Licence, and Closing Arguments, the TG recommended that use of Point Lake overburden for progressive and final reclamation be maximized. The TG recommended that the Licence or Permit include conditions requiring that the Licensee maximize the use of Point Lake overburden and requiring submission of a Point Lake Overburden Use Plan. In its Intervention and Closing Arguments, GNWT-ENR also recommended that Arctic use as much of the available Point Lake overburden as possible to enhance reclamation efforts. Both Interveners noted that overburden is a valuable resource. The TG also stated that requirements of a Point Lake Overburden Use Plan could be outlined in the Licence schedule for the CRP but would prefer a standalone plan. Arctic responded that it committed to utilizing Point Lake Overburden for reclamation. Arctic indicated that it “cannot reasonably commit to relocating all of the Point Lake Overburden for uses in Reclamation.” Arctic wrote it believed the concern raised by the TG is related to post-closure caribou movement and was most appropriately addressed through the ICRP. Arctic stated the ICRP Schedule 9, Condition 1(b) requires the ICRP include a description of engagement on the use of glacial till and overburden material for vegetation for the main Ekati site. The Board notes that a condition requiring maximizing use of overburden is not enforceable as it is too vague for assessment, but a Point Lake Overburden Use Plan is a useful tool for identifying how overburden can be best used, and may align with decisions made regarding the interim Closure and Reclamation Plan. The Board has included a schedule requirement for the submission of a Point Lake Overburden Use Plan with the next version of the interim Closure and Reclamation Plan. The Board is of the opinion that the requirements outlined in Schedule 9, Condition 1(h) provide a balance of recommendations from TG and Arctic. This Plan provides Arctic the opportunity to provide rationale for uses that it believes are reasonable and in line with their various commitments.

#### **6.11.2 Progressive Reclamation**

Comments regarding the timing of the flooding of the Point Lake Pit were raised in review of the Applications (GNWT comment 24). Arctic indicated that flooding of the Point Lake open pit would occur

---

<sup>99</sup> See WLWB Online Registry for [Ekati – Point Lake – Project Description – May 31 21](#)

<sup>100</sup> See WLWB Online Registry for [Ekati – Interim Closure and Reclamation Plan V3.1 – Extension Request – Decision Letter – Feb 10 22](#)

during on-going mine operations or during a period of active reclamation. Arctic noted the site-wide pit flooding program would be updated to incorporate the Point Lake Project at the same time it is incorporated into the ICRP. In TG's Intervention, it recommended the Board require Arctic to start flooding the pit and covering waste rock soon after open pit mining ends. In response, Arctic noted its commitment to construct the WRSA cover as quickly as reasonably achievable after completion of open pit mining but noted it could not reasonably commit to a specified timeframe and indicated a similar commitment with respect to pit flooding, as timing for completing pit flooding may be affected by scheduling of potential future Underwater Remote Mining. During the Hearing, Arctic confirmed there would be an individual pit flooding plan for Point Lake.<sup>101</sup> Board staff then asked the TG if there were any further comments or suggestions regarding recommended Licence conditions on timing. TG indicated there was a bit more time to figure out details for pit flooding and suggested Licence tools to address pit flooding timing that would give comfort to Parties that issues would be discussed thoroughly. Board staff asked the TG if it thought the pit flooding plan needed to be linked to the end of mining. The TG responded that it liked the idea of linking engagement, review, and approval processes to a reasonable amount of time before an activity takes place.<sup>102</sup> The Draft Licence included a new requirement in Schedule 9, Condition 1 (f) for the ICRP to include a description of how pit flooding plan(s) will be linked to end of mining. The TG commented on the Draft Licence that it was unsure if the new requirement was intended to ensure the pits are flooded as soon as possible, and that there was no requirement to ensure waste rock would be covered as soon as possible (TG comment 17). The TG acknowledged Part K, Condition 1 requires Arctic to "endeavor to carry out progressive Reclamation of areas as soon as is reasonably practicable." The TG noted there were potential long-term consequences of unnecessarily delaying the flooding of the Point Lake Pit and covering of the Point Lake WRSA and referred to the evidence on the record for the acid-generating potential and metal leaching predictions for Point Lake Project metasediment and the lack of evidence about lag time for onset of acidic drainage. TG recommended conditions be added to the Licence to specify that flooding of Point Lake Pit and cover of the Point Lake WRSA begin within specified timeframes. The TG suggested the number of months for both be between six and 12 months. Arctic responded that the Point Lake Closure Plan would commit to the "filling of the Point Lake open pit as soon as reasonably achievable following completion of mining and a determination that filling with water would not compromise future mining opportunities", and cover of the WRSA would be placed "at the completion of mining to initiate the long-term benefits of the cover as soon as reasonably achievable." Arctic noted it believed these commitments were appropriate and reasonable and objected to prescribed timeframes, noting the TG had not provided rationale for its recommended timeframes. Arctic stated it had initiated technical work on seepage predictions and WRSA design that will inform future discussions of reclamation schedules under the ICRP, which it believes is the appropriate mechanism for this discussion. In its Closing Arguments, the TG stated it disagreed that Arctic's commitments were sufficient, and that a tool was needed to ensure no unnecessary delays. The TG noted that the proposed condition would give the Board flexibility to approve a change to the deadline at Arctic's request. In its Closing Arguments, Arctic indicated

---

<sup>101</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 2 Transcript – Nov 22 21](#); pg 199-200

<sup>102</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 3 Transcript – Nov 25 21](#); pg 82-84

it is premature to set out a timeframe for flooding and WRSA cover and would eliminate necessary flexibility. The Board acknowledges that flexibility may be needed for the pit flooding with respect to potential Underwater Remote Mining. However, the Board also acknowledges the higher risk associated with potential long-term consequences for the acid-generating potential and metal leaching predictions for PLP metasediment and the associated uncertainty related to the future water quality, and has therefore included Part K, Condition 8 and adjusted the requirement in Part K, Condition 11 to include timing requirements. The Board has decided these requirements balance protection of the environment with providing the Licensee with flexibility and additional time to consider the potential for underground remote mining. The Board recognizes that there may be reasonable operational or unforeseen circumstances that warrant reconsideration of these timelines, so would like to remind all Parties that an request to change a date within the Licence can be updated at the discretion of the Board as per Part B, Condition 7. The Board also recognizes that there is an upcoming Renewal where potential changes can be considered.

### **6.11.3 Closure Criteria**

In its Intervention, the TG recommended that the Board consider approving closure criteria for waste rock piles as early as possible, and that the Board consider approval of closure criteria for waste rock piles before Arctic submits a final closure cover design. Arctic responded that a process for finalizing numerical closure criteria associated with the approved closure objectives was underway through the ICRP and was the appropriate process for this discussion. Arctic noted that direction for completion of a closure criteria work plan would be redundant to current Board directives and work underway for closure criteria. Arctic believes TG's recommendations are relevant to on-going discussions for the ICRP and are not directly relevant to this Amendment Proceeding. In review of the Draft Licence, TG noted that the Seepage Prediction Report required a comparison of predictions to closure criteria and interpreted that as needing numerical closure criteria (TG comment 16). The TG recommended the Board consider how the Licence could ensure some or all criteria related to the WRSA are advanced or finalized at the WRSA design stage. Arctic noted narrative closure seepage quality criteria have been proposed for WRSA seepage, and that numerical constituent concentrations for the Point Lake WRSA would be incorporated into the criteria work plan as implemented through the ICRP. Arctic intends to develop numerical criteria on a schedule so they are available for the Point Lake WRSA Final Cover Design, but that factors may affect this timing, and Arctic may need to proceed on the basis of narrative criteria and/or generic water quality guidelines. The Board is of the opinion that the ICRP has been the appropriate mechanism for addressing closure criteria discussions and decisions, and notes that submission of ICRP Version 3.1 is in October 2022. Given the short duration of the Point Lake Project, potential risk associated with the Point Lake WRSA(s) material, and typical timeframe for review of an ICRP, the Board is of the opinion that it is prudent to ensure closure criteria will be in place prior to the completion of Point Lake mining activities.

Given the mine life of the Project, and the time-sensitivities identified with leaving waste rock and pit walls exposed, the interim CRP Version 3.1 will likely be the only CRP submitted prior to the final CRP for the Point Lake Project. Delaying discussions of closure criteria for the Point Lake WRSA(s) until the cover design may affect closure planning for the piles. In some instances, Arctic may be able to propose

numerical closure criteria that would inform closure design and planning sooner. As such, the Board directs Arctic to propose advanced closure criteria applicable to the Point Lake WRSA with the submission of ICRP Version 3.1, wherever possible. As required for all closure criteria, Version 3.1 should include a criteria work plan to identify the necessary tasks (e.g., research, modelling, comparisons with guidance values, etc..) and the associated timelines, including the anticipated timelines for submission of proposed closure criteria associated with Point Lake to the Board. For any criteria considered under development, Arctic is to identify which criteria are anticipated to include a numeric component and what actions are required in order to propose numerical criteria.

#### **6.11.4 Pit Design**

In its Intervention and Closing Arguments, IEMA recommended that Arctic should submit, for review and approval, a final open pit design that demonstrates how planning for closure, including development of littoral zones, has been incorporated in pit design. Arctic responded to the Intervention that the design for littoral zones for open pit closure is a topic under the ICRP, and design basis and methods were being established through that work. Arctic noted there were no operational drawbacks or difficulties to constructing littoral zones after open-pit mining and recommends the ICRP is the appropriate process for this design and approval. During the Hearing, IEMA noted that in the latest ICRP, Arctic had identified issues related to pit rim topography, and challenges to be faced when deciding where to establish littoral zones. IEMA asked Arctic to address why it would not be important to make sure considerations for closure were addressed during design of the open pit. Arctic responded that it didn't see significant benefits to establishing littoral zones early as their purpose is for use by fish when the pits are filled. Arctic also noted that the closure planning and engagement process requires engagement with respect to design, location, and numbers of littoral zones in a pit. Arctic further noted that the operational necessity of the pit was that during operations, pits need to be designed and engineered to be safe. Arctic noted that once a pit is full of water, it becomes more stable, and considerations can be made for littoral zones. Arctic affirmed that it believes the ICRP is the appropriate place to address closure concerns, design, and criteria.<sup>103</sup> The Board notes that the discussion of littoral zones has been ongoing in ICRP discussions, and Closure Objectives and Closure Criteria address the requirement for littoral zones. As per the Decision for ICRP Version 3.0, the Board required the Licensee to revised closure objective OP-3 (Facilitate the establishment of self-sustaining aquatic ecosystems and fish habitat in pit lakes) to include all open pits or demonstrate if it was unreasonable at specific locations within certain pits. The Board has decided the CRP process continues to be the appropriate mechanism for this discussion.

#### **6.11.5 WRSA Cover Design Plan**

A condition was added to the Draft Licence to reflect the submission of a final Waste Rock Cover Design Plan for the Point Lake Waste Rock Storage Area (WRSA) (Part F, Condition 3). Schedule 5, Condition 3 requirements for the WRSA Cover Design were included in the Draft Water Licence based on input during

---

<sup>103</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 110-116  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 52 of 68

the Proceeding, including a recommended list of requirements from the TG in its Intervention. As an Undertaking, Arctic was asked to comment on the feasibility of TG's recommended requirements; Arctic's response was also reflected in the Draft Licence. The Board decided this submission was best reflected as part of Closure and Reclamation planning for the site and has moved the relevant conditions and schedule to Part K and Schedule 9.

In its Intervention, the TG recommended that the waste rock pile cover design meets the MVLWB/INAC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the NT (Closure Guidelines)*. Arctic did not respond to this recommendation in its Response to Interventions or response to Undertaking 3. The TG's recommendation appears to be consistent with the approach used at other mine sites where a Component-Specific Closure and Reclamation Plan is submitted to advance closure planning on a particular component of the site.<sup>104</sup> The Board notes that the Closure Guidelines require additional considerations beyond an engineered design plan (e.g., closure objectives, closure criteria, research, engagement, long-term monitoring and maintenance etc.). The Board agrees with TG that the submission should be in accordance with the Closure Guidelines and has included this in the Licence requirement.

In its comments on the Draft Licence and Closing Arguments, Arctic recommended removing Schedule 5, Condition 3 (b) (now Schedule 9, Condition 2(b)) from the WRSA Cover Design schedule requirements for describing the "cultural values, final shape, look, and feel of the cover" (Arctic comment 13). Arctic noted that "cultural value is not an intrinsic engineering design factor to which Arctic can reasonably be held accountable" and that "cultural values can only be describe by IGOs". The Board agrees with Arctic that cultural values do not necessarily need to be described as they are from IGOs and has removed "cultural values" from Schedule 5, Condition 3 (b) (now Schedule 9, Condition 2 (b)). However, the final shape, look, and feel of the cover are part of standard land form design, and Arctic should be engaging with Parties in advance of, and during, the development of the proposed Cover Design. The Board notes that Arctic should also be generally engaging with Parties with respect to closure items such as revegetation and how the pile will meet closure objectives. As such, the Board has revised the WRSA Design schedule to reflect these engagement requirements.

In its comments on the Draft Licence, Arctic also recommended (Arctic comment 14) removing Schedule 5, Condition 3(g) (now Schedule 9, Condition 2(g)), the requirement to "update water quality predictions using seepage monitoring data and rock testing during mining, and other relevant geochemical testing or monitoring information." Arctic stated it was "unknown whether additional modelling would be helpful or necessary", and that the short operating life of the Point Lake Project might negate any benefit to updated modelling. Arctic committed to updating WRSA seepage predictions at times when monitoring data indicated a necessity and believed that timing should be through the ICRP. In its response to Undertaking #3, Arctic had indicated that the preliminary design for the cover would include seepage

---

<sup>104</sup> See WLWB Online Registry for [Diavik - Closure and Reclamation Plan - WRSA - Directive and Reasons for Decision - Feb 9 18.pdf](#) W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 53 of 68

quality predictions that would be updated, as required, for Final Design. The Board believes that given the higher risks associated with the PAG material in the Point Lake WRSA, it is prudent to update the water quality predictions with operational data and has not removed the requirement.

In review of the Draft Licence, DKFN and IEMA provided recommendations for Schedule 5, Condition 5 (h) regarding predictive water quality modelling for the KPSF receiving Point Lake seepage be revised to include details around the cover design. The Board notes the Licence requirements for an EQC Report and the WRSA Design Report address the concerns raised by DKFN and IEMA, and the Schedule Condition was removed.

DKFN also recommended that the Schedule 5, Condition 3(e) (now Schedule 9, Condition 2(e)) requirement in the Draft Licence for “how the cover is expected to perform with climate change” be revised to “how the cover is designed to address potential effects/risk from climate change” (DKFN comment 4). Arctic responded that the language as written addressed the requirement as appropriate for a design report. The Board believes that the requirement is sufficiently flexible, and notes that there are also other schedule requirements for the consideration of climate change related to the performance of the cover.

IEMA also recommended that the schedule requirements for the Point Lake WRSA Cover Design include how the thermal modelling confirms the type and thickness of the cover needed. IEMA noted it was critical to understand the thermal conditions in the pile, not just the internal heat balance, as it is only one input to the heat balance (IEMA comment 20). Schedule 5, Condition 3(d) (now Schedule 9, Condition 2(d)) of the Draft Licence required confirmation of the thickness of the cover and confirmation to better understand internal heat generation in the pile. Arctic responded that it believed the information requested is addressed through the condition as written and found no reason to amend the wording. The Board notes that the material characteristics needed for the cover are important for the design. As Arctic did not appear to object to providing this information, the Board revised the requirement to include “type” of the cover needed, as well as the thickness. The Board believes a description of the general thermal conditions will give a broader understanding of the pile conditions and has revised the requirement to include IEMA’s recommendation.

In review of the Draft Licence, the TG recommended that the WRSA Cover Design Schedule include a requirement for Arctic to apply engineering judgement to evaluate whether the cover can reasonably be expected to perform in the period after climate change predictions are reliable (TG comment 13). The TG noted that a similar consideration was made by the Board in its August 23, 2017 decision on the Diavik WRSA cover, and that “climate change models do not have the ability to predict complete climate cycles into the indefinite future...Nonetheless, appropriate engineering judgement must still be applied if, for example, a rock pile must remain frozen beyond 2100.”<sup>105</sup> Arctic responded that the schedule included

---

<sup>105</sup> See WLWB Online Registry for [Diavik – Final Closure and Reclamation Plan – WRSA – Version 1.1 = Aug 23 17https://www.wlwb.ca/registry/entry/177](https://www.wlwb.ca/registry/entry/177)  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 54 of 68



requirements such as “thermal modeling using current and credible climate change predictions...”, “how the cover is expected to perform with climate change,” and “how the company will protect water quality if the cover does not perform as expected...” Arctic noted it believes these requirements address TG’s concern. The Board notes that Arctic is required to use current and credible climate change predictions. The Board’s August 23, 2017 decision was related to the climate change scenario selected by DDMI to conduct the modeling, and questions from Parties regarding the selected predicted temperature increase. The Board had also noted in this decision that the uncertainty beyond 2100 was too great to be reliable. Given the higher risk associated with the Point Lake metasediment, the Board agrees with TG that it is reasonable to consider how the cover may perform after climate change predictions are reliable and has added the recommendation to the schedule.

In its Intervention, TG recommended that Arctic should not start building the cover until the Board approves a final cover design and made any specific recommendations to be included in the final cover design. Arctic did not note an issue with this recommendation in its Intervention response. The Board believes that given the higher risk associated with the Point Lake metasediment, and the importance raised by the TG about the cover “keeping water in lakes and creeks safe long after the mine is closed”, it is appropriate to include this recommendation as a Licence requirement, and has revised Part K, Condition 12 to reflect this recommendation.

The Board decided to add Schedule 9 Condition 2(m) to reflect standard Licence language in the Cover Design Plan schedule.

#### ***6.11.6 Zone of Influence Research***

In its Intervention and Closing Arguments, the TG recommended zone of influence research related to caribou be a requirement of the CRP Schedule (TG comment 10). TG’s Intervention specifically recommended Arctic support scientific research on the caribou “Zone of Influence (abundance, distribution, migration, and behaviour of ekwò in and around the mine)”. Arctic responded that it planned to implement this research under Jay EA Measure 6-5 and use this work in informing the review and update of the WEMP, including the CRMP. The Board notes that this recommendation doesn’t appear to be related to caribou habitat, and believes it is more suitably addressed through the WEMP and CRMP as noted by Arctic.

#### **6.12 Annex B: Surveillance Network Program**

Annex B of the Licence contains conditions applying to the Surveillance Network Program (SNP). The SNP details the sampling and monitoring requirements related to compliance with several conditions in the Licence. Requirements for measuring flows, volumes, and meteorological data are based on standard licence conditions as are the reporting requirements.

As per Information Request 51, Arctic provided a Draft Licence with Annex B with proposed SNP stations.<sup>106</sup> The Draft Annex B underwent public review and had SNP Stations associated with the Jay Project removed and new stations added for the Point Lake development. The proposed additional SNP stations were for: the additional proposed sumps for the Point Lake WRSA Seepage Collection system; the dewatering outflow to Lac du Sauvage from Point Lake; and the dewatering outflow to Connor Lake from Point Lake. The Board has decided these added stations are sufficient because: they include parameters typically sampled at SNP stations for their purpose, and at typical frequencies; other water quality monitoring is being conducted through the AEMP; and no comments were received for the proposed removal of SNP Stations associated with the Jay Project or the new stations added for the Point Lake development.

In review of the Draft Licence, Arctic noted that it had proposed that three new SNP stations be added to Annex B for Connor, Alexia, and Thinner Lakes, on the basis that they would be monitored under the SNP (Arctic comment 27). Arctic noted that the Draft Licence indicated they would be monitored under the AEMP, and as such the stations under the SNP would be redundant and recommended they be omitted. The Board agrees with this recommendation as monitoring for these lakes will be covered under the AEMP, and has removed the relevant proposed SNP stations from Annex B.

### **6.13 Annex C: Table of Revision History**

Annex C of the Licence contains a table which identifies updates and tracks changes made to the Licence. This table will be updated throughout the life of the Licence.

### **6.14 Jay Conditions**

Appendix A of these Reasons for Decision contains the definitions and conditions from the Licence related to the Jay Project that have been removed from the Licence. These conditions were either directly related to the Jay Project activities or operations, or are not related to Jay Measures that have been committed to by government or Arctic, carried over, or part of a facility already built in relation to the Jay Project (e.g. the Jay Road, now called the Lac du Sauvage Road).

As identified in Arctic's IR Response to the Review Board, a number of Jay Measures are carried forward and/or are already in place for the site. Measures related to the Point Lake Amendment that have been carried through include Measure 7-1 for the Traditional Knowledge Management Framework. Arctic's IR Response to the Review Board further outlines how some of these Measures are addressed in other Licence and regulatory instruments.<sup>107</sup> Measure 6-1 for Caribou offset and mitigation plan, 7-2 for the On the Land Culture Camp, and 6-5 were included more appropriately in Permit W2021D0005. Measure 7-1 was also reflected in Permit W2021D0005.

---

<sup>106</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Arctic IR 51 Response – Sep 17 21](#)

<sup>107</sup> See WLWB Online Registry for [Ekati - Point Lake - Arctic Response to MVEIRB IR - Sep 24 21.pdf](#)

Table 1.0 in Appendix A outlines the Jay Measures within WLWB jurisdiction, and whether or not they were kept in W2020L2-0004 and/or W2021D0005.

## **7.0 Decision – Land Use Permit W2021D0005**

Having due regard to the facts, circumstances, and the merits of the submissions made to it, and to the purpose, scope, and intent of the [MVRMA](#), the Board has determined that Permit W2021D0005 should be issued, subject to the scope, defined terms, conditions, and term contained therein. The Board's determinations and reasons for this decision are set out below.

The Permit has been developed to address the Board's statutory responsibilities, to protect the receiving environment, and to address issues within the Board's jurisdiction that were identified and investigated during the regulatory proceeding.

In developing the Permit, the Board considered the MVLWB [Standard Permit Conditions Template](#) (Standard Permit Conditions) and included a number of these standard conditions that are relevant to the Project and appropriate based on the Board's review of the evidence on the record.

### **7.1 Term of Permit**

The Applicant has applied for a term of five years for the Permit. Subsection 26(5) of the [MVLUR](#) allows for a Permit term of not more than five years. No concerns were raised during the Proceeding with respect to the proposed Permit term. After reviewing the submissions made during the regulatory proceeding, the Board has determined an appropriate term for the Permit is 5 years.

### **7.2 Part A: Scope of Permit**

The scope of the Permit ensures the Permittee is entitled to conduct activities which have been applied for and that have been subject to Part 5 of the [MVRMA](#). In setting out the scope of the Permit, the Board endeavoured to provide enough detail to identify and describe the authorized activities, without being unduly restrictive or prescriptive, and to allow for project flexibility, as contemplated in the Application, throughout the life of the Permit.

Based on the activities described in the Permit Application, the scope outlined in the Standard Permit Conditions, and the draft scope provided by Arctic in its Application, Board staff included a draft scope in the draft Permit that was circulated for public review. Board staff asked Arctic to provide clarification on the item included with the Application for "associated and supporting activities" (WLWB staff comment 1). Arctic responded that it found that the items listed in the scope of the permit effectively and reasonably defined the Project, but don't necessarily identify every supporting task that may be required, so the "associated and supporting activities" makes it clear that additional, unidentified tasks are likely to be carried out. Arctic noted past operating experience at Ekati had demonstrated that "overly prescriptive scoping statements have a high risk of unnecessarily restricting on-the-ground operating activities" and may affect efficient operations by Arctic and implementation of Board-required mitigation measures.

Arctic recommended revised wording to enhance clarity as follows: “operating or mitigative activities that support, are associated with, or are required to efficiently carry out the preceding activities listed in this condition.” The Board agrees with Arctic that it is important that the wording of the scope does not unintentionally restrict activities that have been authorized and notes that any new activities and/or areas that have not been subject to Part 5 of the MVRMA are required to be identified and considered through the Board’s amendment process. The purpose of the question from Board staff was to ensure there weren’t additional activities that hadn’t been subject to Part 5 of the MVRMA. Because it is understood that activities outlined in Arctic’s applications and considered by the Board in its Preliminary Screening Determination are authorized and outlined in the scope of this Permit, the Board has decided to remove the corresponding item from the Permit to avoid confusion and the potential inclusion of activities that were not previously considered.

### 7.3 Part B: Definitions

The Board defined certain terms in the Permit to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Permit, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. For the most part, the Board selected applicable definitions relevant to the Project from the Standard Permit Conditions. Where appropriate, the Board created new definitions, modified standard wording, or used Project-specific definitions to reflect the evidence as described below:

- **Spring Break-up** was revised to reflect the specific break-up periods for this Project site as recommended by GNWT-Lands Inspector (comment 1) and proposed by Arctic (comment 29).
- **Traditional Knowledge Management Framework** was included to reflect Arctic’s commitment to the specified framework.

In its review of the Draft Permit, DKFN recommended removing or omitting definitions that are specific to the Jay Development (DKFN comments 8 and 12). IEMA and GNWT-Lands also recommended that the defined term “Jay Development” be removed from Part B, noting it was not used in any condition (IEMA comment 4 and GNWT-Lands comment 2). IEMA also recommended that any reference to the operation of the Jay Project should be removed from the Draft Permit including updating the definition for the “Lac du Sauvage Road.” Arctic responded that it noted four definitions began with the word “Jay” and did not object to removal or modification of those definitions if “not required to ensure that the Land Use Permit is appropriate to the Point Lake Project in the absence of the Jay Project.” Arctic also noted that there is a reference to “Jay Road” as part of a quote from the Jay Project of Environmental Assessment, and may be appropriate to keep in the Permit. The Board has decided that definitions that are specific only to the Jay Project are to be removed from the Permit, but definitions related to the Point Lake Project (e.g., the name change for the Jay Road to Lac du Sauvage Road) will remain in the Permit.

## **7.4 Part C: Conditions Applying to All Activities**

The subheadings below correspond to the headings in the conditions section of the Permit, as outlined in subsection 26(1) of the [MVLUR](#).

### **7.4.1 General Conditions**

#### 26(1)(a) Location and Area

The conditions included in this section are all consistent with the Board's Standard Permit Conditions. In its review of the Draft Permit, Arctic noted it understood that the specific 30 m width for a right-of-way did not apply to roads or other developments that are constructed to specific approved designs and widths (Arctic comment 30). The Board notes that this condition is from the Board's Standard Permit Conditions, and that previous permits issued to Arctic did not include a specified width right-of-way for constructed roads (for example W2016F0006, W2016D0005, and W2016D0003), and the access road for Point Lake had specified parameters in the Project Description. Therefore, the Board is of the opinion this is not a necessary condition for the Point Lake Project. Therefore, this condition has been removed from the Permit.

#### 26(1)(b) Time

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(c) Type and Size of Equipment

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(d) Methods and Techniques

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(e) Type, Location, Operation of All Facilities

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

## WASTE MANAGEMENT PLAN

All applicants must submit detailed waste management information, identifying all types of waste that will be produced by the project (including quantity and quality) and describing the disposal methods that are proposed for each type of waste. For most applicants, this will be in the form of a WMP, developed in accordance with the MVLWB [Guidelines for Developing a Waste Management Plan](#), and licences and permits will include standard conditions regarding compliance with the Plan, as approved by the Board. The Plan is also required under Part F of the Licence, and the Board's reasons for decision regarding the Plan are described above in [section 6.7](#). The Board mirrored these Licence and Permit conditions as much as possible to ensure one submission will satisfy conditions of both the Licence and Permit.

### 26(1)(j) Protection of Historical, Archaeological, and Burial Sites

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

### 26(1)(l) Security Deposit

The Board is authorized to require the Permittee to provide security to the Minister by subsections 71(1) of the [MVRMA](#) and 32(1) of the [MVLUR](#). Subsection 71(3) of the [MVRMA](#) specifies how the security may be applied.

The Board has included a requirement for a security deposit of \$986,852 in the Permit. The Board's reasons associated with this requirement are described above in [section 6.3](#) in conjunction with its reasons for the security required in the Licence. The security deposits required by these two instruments are discussed together since the estimates deal with the same Project and are closely linked.

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

### 26(1)(m) Fuel Storage

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

## SPILL CONTINGENCY PLAN

All applicants must describe spill contingency planning. For most applicants, this will be in the form of a SCP, developed in accordance with the INAC [Guidelines for Spill Contingency Planning](#), and licences and permits will include standard conditions regarding compliance with the Plan, as approved by the Board. The Plan is also required under Part H of the Licence, and the Board's reasons for decision regarding the Plan are described above in [section 6.9](#). The Board mirrored these Licence and Permit conditions as much as possible to ensure one submission will satisfy conditions of both the Licence and Permit.

### 26(1)(n) Methods and Techniques for Debris and Brush Disposal

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(o) Restoration of the Lands

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### CLOSURE AND RECLAMATION PLAN

All applicants must describe closure and reclamation planning. For most applicants, this will be in the form of a Closure and Reclamation Plan (CRP). The Plan is required under Part I of the Licence, and the Board's reasons for decision regarding the Plan are described above in [section 6.11](#).

#### 26(1)(p) Display of Permits and Permit Numbers

The conditions included in this section are all consistent with the Board's Standard Permit Conditions.

#### 26(1)(q) Biological and Physical Protection of the Land

The conditions included in this section are all consistent with the Board's Standard Permit Conditions, with the exception of the **Traditional Knowledge Management Framework**. In the spirit of applying relevant Jay Measures to the Point Lake Project, Arctic included this definition in its application. GNWT-Lands also commented on the TKMF-related conditions and noted they were required by Measure 7-1 of the Jay Report of EA (GNWT-Lands comment 1). GNWT-Lands asked for the Board to clarify if the conditions applied beyond the Lac du Sauvage Road that was constructed for the Jay Project. Arctic responded that the conditions generally applied to the Point Lake Project as a whole and would apply to the lifetime of the Point Lake development. IEMA commented on the Draft Permit regarding the TKMF and recommended the TKMF be applied site-wide until closure had been completed. IEMA also recommended the TKMF be submitted for Board approval and updated on a regular schedule (IEMA comments 2 and 3). Arctic responded that the existing definition for the TKMF had originated from the Jay Project Report on EA and had included the necessary change of reference to the Point Lake Project instead of the cancelled Jay Project. Arctic also noted that the TKMF is intended to include Traditional Knowledge protocols from individual IGOs that Arctic considers internal information that should not be shared or reviewed publicly for approval by a third party such as the Board. The Board agrees with Arctic that review of IGO protocols is not appropriate for approval by a third-party, notes that the definition was directly copied from the Jay Project conditions, and it is not evident that all IGOs want to participate in the TKMF process (see TG comment 18). Therefore, the Board has decided to not revise the TKMF Framework conditions at this time.

#### ENGAGEMENT PLAN

The Board assesses adequacy of engagement through the MVLWB [Engagement and Consultation Policy](#), and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). In accordance with the Policy and Guidelines, the Applicant included an Engagement Record and Plan in the

Applications.<sup>108</sup> The Plan is also required under Part B of the Licence, and the Board's reasons for decision regarding the Plan are described above in [section 6.3](#). The Board mirrored these Licence and Permit conditions as much as possible to ensure one submission will satisfy conditions of both the Licence and Permit.

#### 7.4.2 Conditions related to 26(1)(h) Wildlife and Fish Habitat

##### 26(1)(h) Wildlife and Fish Habitat

The [MVLUR](#) includes provisions related to the protection of wildlife habitat; however, impacts to wildlife and requirements for Wildlife Management and Monitoring Plans (WMMPs) are under the jurisdiction of the GNWT through the *Wildlife Act*. On June 23, 2021, the GNWT determined that Arctic requires an approved WMMP and it was satisfied that Arctic's Wildlife Effects Monitoring Plan (WEMP) for the Jay Project met the requirements of the *Wildlife Act* when applied to the whole Ekati site, and understood this was how Arctic was applying the plan.<sup>109</sup> In their letter, GNWT noted that acceptance of the existing WEMP was given with the understanding that it had already undergone extensive public review and that further public review would occur when Arctic submitted a revised WMMP with its Licence renewal application.

The Proceeding included a lot of discussion around wildlife and wildlife habitat. In the Preliminary Screening decision, the Board identified the requirement for the WMMP under subsection 95(2) of the *Wildlife Act*, and other information provided by the GNWT that satisfied the Board that impacts to caribou and caribou habitat would be mitigated.

The Board acknowledges the concerns raised regarding caribou habitat during this Proceeding, and that concerns around linear disturbances (i.e., roads and pipelines) in caribou habitat remained. The Board is of the opinion that specific conditions are appropriate to include in the Permit to address these concerns. The Board addresses the use of conditions in the Permit to address wildlife habitat concerns below.

##### WEMP and CRMP

In its Applications, Arctic made reference to the WEMP and Caribou Road Mitigations Plan (CRMP) both regulated by the GNWT through the *Wildlife Act* and containing the mitigations associated with the Point Lake Project. In Interventions, a number of Parties, including DKFN, FRMG, IEMA, TG, LKDFN, and NSMA, expressed concerns with the potential barrier effect of the Point Lake Project on caribou movement and the effectiveness of the current caribou mitigation measures. It was noted that the proposed Point Lake Project is within a known caribou movement corridor. IEMA stated that there was a lack of assessment or rationale from Arctic to determine to what extent mitigations under the CRMP are effective. In its Intervention response, Arctic responded that wildlife mitigations included existing aspects of the

---

<sup>108</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Engagement Plan – Version 4.1 – Jul 27 19](#) and [Ekati – Point Lake – Project Description – May 31 21](#); Appendix G: Pre-Application Engagement Record.

<sup>109</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – GNWT requirement for a WMMP – Jun 23 21](#)



approved WEMP and CRMP, development of the Point Lake WEMP Addendum, carry-forward of Jay EA measures related to caribou mitigation, and identification of WRSA design variations for caribou movement.

Arctic also noted in its response to Interventions that the Point Lake WEMP Addendum was being developed for discussion at a community meeting in December 2021, and that pending the outcomes of the meeting, could circulate the addendum after the Hearing. Arctic noted a general review and update of the WEMP was required by October 2023 by the GNWT. In Interventions, FRMG recommended that an adaptively modified version of the WEMP based on further public review be developed for Point Lake operations as a condition of the project to proceed, noting that it was concerned that necessary improvements to existing plans wouldn't come into effect until the review of the WEMP was conducted. Arctic responded that the WEMP had been approved by the GNWT on a site-wide basis, which would include the Point Lake Project and noted Arctic's commitment to develop a Point Lake Project Addendum to the WEMP. IEMA also recommended in its Intervention and Closing Arguments that Arctic update the CRMP and WEMP based on available data, and work with stakeholders to assess the efficacy of the current CRMP. Arctic noted the Addendum would be incorporated into the WEMP through the review process to be completed by October 2023. In response to IEMA, Arctic noted it planned to work with IGOs and other stakeholders to conduct the general review and update of the WEMP and CRMP. In its Intervention and Closing Arguments, IEMA also recommended that additional caribou mitigation actions be implemented and include longer traffic break intervals during periods when caribou were migrating through the area between Lac du Sauvage and Lac de Gras and Point Lake Project Area. Arctic responded that the CRMP was in being implemented throughout the Ekati site and would apply to the Point Lake Project. Arctic noted that there was a hierarchical, multi-level approach to mitigation and monitoring for managing road-associated risks, and that mitigation activities increase as caribou approach the mine. Arctic noted that based on increased behavioural and location monitoring, Arctic had not observed evidence that traffic was the cause of change in caribou movement patterns and believed IEMA's recommendation was premature and potentially incorrect. Arctic further noted that the use of dual-powered road trains would further mitigate caribou risk as there would be fewer trips on the road. Arctic indicated analysis of larger-scale caribou movements has been or will be initiated for the scheduled review and update of the WEMP and CRMP by October 2023.

During the Hearing, Arctic indicated that engagement feedback had reinforced the importance that caribou can move safely through the project area.<sup>110</sup> Arctic also noted that available TK was considered for the Point Lake application regarding caribou movement, which is a well documented concern in the Project area. Arctic said it planned to carry forward Jay EA measures related to caribou mitigation, including supporting community-based monitoring, zone of influence research, and regional research objectives regarding the Bathurst caribou herd. Arctic addressed the Caribou Road Mitigation Plan, and that some of the key features are the creation of ramps to facilitate caribou passage, limiting snowbank

---

<sup>110</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 31  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 63 of 68

height on sides of roads, and daily road surveys and traffic management.<sup>111</sup> Arctic noted it was planning physical modifications to the Lac du Sauvage Road and additional caribou crossing ramps on the Sable Road.<sup>112</sup>

During the Hearing, Elder Joseph Judas asked Arctic how it would work with the Indigenous people, and how it would prepare for animals that make use of the Ekati site. Arctic responded that it had made commitments to fund community-based monitoring programs and would bring community members to the site. Arctic also noted that money was committed to do TK and science-based research regarding the Bathurst herd.<sup>113</sup> The TG also explained how they consider caribou and caribou habitat in its questions and noted that if caribou cannot access their habitat or have too many barriers, then seasonal caribou habitat does not function as habitat.<sup>114</sup>

At the Hearing, GNWT accepted Undertakings related to the regulation of Ekati through the WEMP with respect to wildlife habitat. GNWT's Undertaking responses outlined which parts of Jay Measure 6-2a (requirement for a caribou offset and mitigation plan) are addressed through the WEMP, and noted the status of items, application to the Point Lake Project, and what regulatory instrument addressed those items. GNWT indicated caribou offsets related to enhanced mitigation for roads, such as the TG's recommendation for additional caribou crossing on the Sable Road, would be best captured in the Land Use Permit. GNWT also indicated that zone of influence research would be captured through the WMMP review process. GNWT was asked to review the WEMP and CRMP to describe in detail how it was specifically responding to habitat concerns raised by Intervenor during the Point Lake Project proceeding and identify if it believed there was additional action required by the Board to address these concerns. GNWT responded that it believed the framework to minimize Point Lake Project impacts on caribou habitat was through the WEMP, CRMP, the conditions within Board-issued authorizations, the WRSA Design Plan, and Closure and Reclamation Plan. The concern that the location of the Point Lake Project could pose a barrier to caribou movements through the tataà was acknowledged as not specifically addressed in the WEMP, but that mitigations already applied through the WEMP (including sections 4.0 and 4.2 of the CRMP) could minimize the potential for this effect. GNWT also expressed that the Board can add conditions it sees fit to supplement this mitigation. GNWT stated there was concern regarding caribou passage being impeded by the raised profile of the Lac du Sauvage (formerly Jay) road, which was not addressed in the WEMP, and could be required as a condition in the Permit.

In Closing Arguments, LKDFN stated that the GNWT is releasing a recovery plan for the caribou, and one of the main goals is to ensure that caribou are free to move and migrate. DKFN noted in its Closing Arguments that engagement on the WEMP and CRMP was expected to occur in early 2022, but at the

---

<sup>111</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 50-52

<sup>112</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 1 Transcript – Nov 21 21](#); pg 63

<sup>113</sup> *Ibid.* pg 161

<sup>114</sup> *Ibid.* pg 167

time of the submission, that engagement had not occurred, and that it must proceed in good faith that sound co-management decisions would be made.

### Road Construction Plan

In TG's Intervention, it pointed to IEMA's assessment from collared caribou of the Bathurst and Beverly/Ahiak herds from 2010 to 2019, which showed the Ekati mine and major roads (Sable and Misery) were having a measurable barrier-effect on caribou that approach within 3 km of mine infrastructure. The TG wrote that while these findings are from an exploratory analysis of a small sample of collar data, the results are consistent with Tłıchǫ Elders' predictions and concerns. The TG recommended that caribou mitigations were needed on two scales: Point Lake Project design to minimize barrier effects, and from a holistic and site-wide perspective with enhanced mitigations at other areas of the Ekati site.

To reflect concerns raised during the Proceeding and commitments from Arctic for modifications to the Lac du Sauvage Road, the Draft Permit included a condition for submission of a Road Construction Plan showing location and design of caribou road crossings for Lac du Sauvage Road and the Point Lake Project access road. Parties were asked to comment on the timing for submission of the plan. WRRB recommended the plan be submitted a minimum of 60 days before WRSA construction (WRRB comment 2) and DKFN recommended it be submitted a minimum of 90 days prior to WRSA construction (DKFN comment 11). Arctic suggested 60 days was an appropriate timeframe for this submission (Arctic comment 31). The Board has decided that 60 days prior to WRSA construction is appropriate for this submission, acknowledging the added requirements as discussed below.

The TG recommended that all roads associated with the Point Lake Project be closed to maximize caribou movement post-closure, with the preferred option to flatten/fill roads and ditches. The TG recommended that any improvements that can be made to roads before final closure and reclamation be made as soon as practical. TG made specific recommendations for the Jay Road (now the Lac du Sauvage Road), Point Lake access road, and the Misery Road. Arctic responded that all aspects of the Point Lake Project, including roads, would be closed according to closure objectives, criteria, and designs approved in the CRP. Arctic noted that modifications to the Lac du Sauvage Road were planned for 2023 when overburden is being excavated from the Point Lake open pit. Arctic indicated the road was required for pit flooding after open pit mining, and that with potential for Underwater Remote Mining, the timing for closure of the Point Lake Road cannot be planned yet. Arctic responded that Misery Road would be needed for general access at the mine until late in the overall closure process. In comments on the Draft Permit, the TG indicated its preferred closure plan for the Lac du Sauvage Road and Point Lake access road as to flatten/fill roads and ditches. TG noted that modifications that are necessary to improve caribou movement may be beyond "caribou crossings" as the entire road needs to present "as little a barrier to caribou movement as possible." The TG stated it expected to continue discussions on whether the modifications to the roads are enough for closure under the CRP. The TG recommended that the Board require Arctic to flatten/fill the entire length of the Lac du Sauvage Road within a short time after W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 65 of 68

the issuance date of the amendment. In its Closing Arguments, the GNWT expressed support for this recommendation, noting that while it could be considered a type of reclamation, and deferred to the CRP, it should be viewed as a habitat mitigation for the Point Lake Project. Arctic responded to the TG that it disagreed that the Licence should prescribe the specific nature and extent of modifications to the Lac du Sauvage Road, and noted the report required through the permit allowed Arctic to continue engagement. In comments on the Draft Permit, the TG recommended that the Misery Road be improved for caribou movement, noting evidence from the proceeding showed the road appeared to be a significant barrier to caribou movement. The TG recommended improvements to the road be addressed through the land use permit to protect caribou habitat (TG comment 7). Arctic responded that it did not believe the potential operating effects of the Misery Road on caribou movement were not established and were a current topic of discussion for the WEMP. Arctic indicated continued analysis of collar caribou data and other research/data collection was being initiated to inform the 2023 review and update of the WEMP. Arctic noted mitigation measures were best carried out through the WEMP and should be linked to effects and causes that are determined through the WEMP. The Board notes that Arctic has committed to work on the Lac du Sauvage Road and is of the opinion it is reasonable to include a requirement for timing of this work within one year of overburden being available. This requirement has been added to Condition 37. The Board also acknowledges that road improvements for caribou habitat mitigation may be beyond “caribou crossings” and has revised the condition to reflect a broader requirement for “caribou mitigations.”

From the holistic site-wide perspective, the TG recommended additional caribou crossing ramps be constructed on Sable Road, and that future opportunities for continual improvements for caribou movement at the Ekati Mine continue to be discussed. Arctic committed to work with TG in 2022 to identify locations on the Sable Road where additional ramps may be beneficial and plan construction work for 2023. In comments on the Draft Permit, the TG again recommended that all improvements that can be made to roads before final closure and reclamation should be made as soon as practical, and that this recommendation be more concretely reflected in the licence or permit (TG comment 6). Arctic responded that it objected to recommendations for changes that are not directly related to incorporating the Point Lake Project, and believed the recommendation was out of scope for this Permit application. In comments on the Draft Permit, the TG also recommended that the commitment to additional caribou crossing ramps on Sable Road be reflected in the permit (TG comment 9). TG noted that while the Sable Road would not be used for the Point Lake Project, the impacts from the Point Lake Project could not be viewed separately from the impacts at the rest of site, and that offsets are necessary. Arctic responded that it had committed to work with the TG to facilitate caribou movement across the Sable Road, but that while this commitment originated from Point Lake Project discussions, the future work was not directly linked to the Point Lake Project in a regulatory sense, and believed the recommendation was out of scope for this proceeding. In its Closing Arguments, the GNWT stated that while it agreed it was within the Board’s jurisdiction to require improvements to the Misery Road and Sable Road, it wanted to clarify that GNWT-ENR had authority to require changes to road structures under the CRMP as part of the WMMP. GNWT suggested a more comprehensive discussion of available data and evidence would be useful in informing revisions to the CRMP, including potential structural

W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 66 of 68

changes. The Board acknowledges that when evaluating and understanding the potential impacts of the Point Lake Project, the entire Ekati site needs to be considered and is of the opinion that Arctic's commitment to work with TG on Sable Road caribou crossing ramps is appropriate to be included in a Permit condition. The Board also notes that GNWT has previously recognized the role of progressive reclamation in caribou mitigations, and believes the requirement included in Condition 37 of the Permit reflects that important recognition.<sup>115</sup> The Board recognizes that use of the Misery Road falls under the holistic site consideration of impacts to caribou habitat and is anticipated to continue to be used throughout the overall Ekati Project life. The Board has decided it is reasonable for Arctic to propose timing for submitting location and designs of caribou mitigations for the Misery Road and has reflected that in the Permit condition.

In comments on the Draft Permit, The TG and Arctic suggested the report should be titled as "Road Improvement Plan" or "Road Modification Plan" respectively, to reflect that the roads are already constructed (TG comment 5 and Arctic comment 31). As both Parties suggested the report title should be revised, the Board has revised the plan name as suggested to reflect that the roads are already constructed, to Road Modification Plan. The Board acknowledges that the mitigations suggested by the TG may be beyond "caribou crossings", and has also updated the condition language to reflect a more general "location and design of modifications for caribou movement mitigations"

The Board included the HABITAT DAMAGE condition in the Permit, which requires the Permittee to prevent damage to wildlife and fish habitat. This is a condition from the Board's Standard Permit Conditions and is intended to ensure the Permittee conducts their land-use operation in such a way as to minimize disturbance to wildlife habitat.

#### **7.5 Annex A: Table of Submissions**

Annex A of the Permit contains a table that summarizes the submissions required by the Permit conditions.

#### **7.6 Annex B: Table of Revision History**

Annex B of the Permit contains a table which identifies updates and tracks changes made to the Permit. This table is currently blank because this is a new permit, but it will be updated throughout the life of the Permit.

### **8.0 Conclusion**

Subject to the scopes, definitions, conditions, and terms set out in the Licence and Permit, and for the reasons expressed herein, the WLWB is of the opinion that the activities, land and water use, and waste disposal associated with the Project can be completed by Arctic Canadian Diamond Company Ltd. while

---

<sup>115</sup> See WLWB Online Registry for [Ekati – Point Lake Project – Public Hearing – Day 3 Transcript – Nov 25 21](#); pg 236  
W2020L2-0004/W2021D0005 – Arctic Canadian Diamond Company Ltd. – Ekati – Point Lake Project Page 67 of 68

providing for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit for all Canadians and in particular for the residents of the Mackenzie Valley.

Water Licence W2020L2-0004 and Land Use Permit W2021D0005 contain provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA, *Waters Act*, and the Regulations made thereunder, and to provide appropriate safeguards in respect of Arctic Canadian Diamond Company Ltd.'s use of the water and land as authorized by the Licence and Permit.

SIGNATURE



---

**Mason Mantla, Chair**  
**Wek'èzhii Land and Water Board**

April 8, 2022

---

**Date**

## Appendix A: Jay Project related Definitions and Conditions

**Table 1.0: REA Measures within WLWB Jurisdiction**

Report of Environmental Assessment Measure	Relevant Condition included in Amendment #4 to W2012L2-0001 (Jay Development) <sup>1</sup>	Carried through for Amendment #1 of W2020L2-0004 (Point Lake Project)	Removed
4-1: Closure objectives	Part K, Condition 6 Schedule 9, Condition 1(f)	Part K, Condition 6	Schedule 9, Condition 1(f)
4-2(a): Site Water Management Plan	Part H, Condition 2 Schedule 6, Condition 1(k)-(n)	Schedule 6, Condition 1(n)	Part H, Condition 2 (subsections pertaining to the Jay development); Schedule 6, Condition 1(k)-(m)
4-2(b): Pit lake water quality & Suggestion	Part K, Conditions 9 and 10	n/a	Part K, Conditions 9 and 10
4-3: Fine Processed Kimberlite & Suggestion	Part H, Condition 32 Schedule 9, Condition 1(a)	n/a	Part H, Condition 32; Schedule 9, Condition 1(a) (subsections pertaining to the Jay development)
4-4: Dyke stability and safety	Part F, Conditions 11-16 Part H, Conditions 32, 34-37 Part G, Condition 5 Part H, Condition 12(a)(ii)	n/a	Part F, Conditions 11-16; Part H, Conditions 32, 34-37; Part G, Condition 5; Part H, Condition 12(a)(ii)
5-1: Protection of the Narrows	Part J, Condition 8(c) Part K, Condition 8	Part J, Condition 8(c)	Part K, Condition 8 (as pertains to the Jay development)
6-1: Road mitigations from caribou impacts (where relevant to the Board's jurisdiction)	Permit W2013D0007 Condition 58 Schedule 9, Condition 1(c)(d)	Permit W2021D0005 – now Condition 37; Schedule 9, Condition 1(c)(d)	n/a
6-2(a): Caribou offset and mitigation plan	Schedule 9, Condition 1(c)(d)	Schedule 9, Condition 1(c)(d)	n/a

<sup>1</sup> See WLWB Online Registry ([www.wlwb.ca](http://www.wlwb.ca)) for [W2012L2-0001 – Ekati – Water Licence – Amendment – Jay Development – RFD and Recommendation to Minister – May 29 17](#)

(where relevant to the Board's jurisdiction)			
6-5: Traditional Knowledge based caribou monitoring and mitigation (where relevant to the Board's jurisdiction)	Permit W2013D0007 Conditions 58 and 59 Schedule 9, Condition 1(d)	Permit W2021D0005 – now Condition 37 (formerly Condition 58 in LUP W2013D0007); Schedule 9, Condition 1(d)	LUP W2013D0007 Condition 59
7-1: Traditional knowledge management framework & Suggestion	Permit W2013D0007 Conditions 56 and 57 Part B, Condition 11 Part B, Condition 17	Permit W2021D0005 Conditions 80 and 81; Part B, Condition 11; Part B, Condition 17	n/a
7-2: On-the-land cultural camp	Permit W2013D0007 Condition 2 Part B, Condition 11	Permit W2021D0005 Condition 3; Part B, Condition 11	n/a
13-1: Monitoring and Adaptive Management by Dominion	Schedule 5, Condition 1(h) Schedule 5, Condition 3(c) Schedule 6, Condition 1(p) Schedule 6, Condition 2(z)	Schedule 5, Condition 1(h); Schedule 6, Condition 1(p); Schedule 6, Condition 2(u) (formerly 2(z))	Schedule 5, Condition 3(c)
13-2: Engagement on cultural impacts	Addressed by the Board in Reasons for Decision. <sup>2</sup>	n/a	n/a
13-4: Annual reporting from Regulatory Authorities	Addressed by the Board in a letter to MVEIRB. <sup>3</sup>	n/a	n/a

The conditions and definitions below were part of the Ekati Water Licence W2020L2-0004 (formerly W2012L2-0001) with respect to the Jay Project. They have been removed from the body of the Licence on the basis of the Licensee's request. The conditions and definitions are reflective of their original form, and parts of these conditions and definitions may remain in the Amended Licence W2020L2-0004 to reflect non-Jay Project requirements.

## Part A: Scope and Definitions

### 1. Scope

- a) Subject to the terms and conditions of this Licence, the Licensee may divert water from Upper Panda Lake to Kodiak Lake, and use water and dispose of Waste for the purpose of mining the Panda, Koala, Koala North, Misery, and Fox kimberlite pipes, and Jay kimberlite pipes, for operating the processing facilities and related infrastructure, and carrying out Reclamation associated with diamond mining within the Koala, Misery, King-Cujo, Desperation-Carrie, and Lac du Sauvage Watersheds of the Lac de Gras basin, Northwest Territories.

<sup>2</sup> See WLWB Online Registry for [W2012L2-0001 – Ekati – Water Licence – Amendment – Jay Development – RFD and Recommendation to Minister – May 29 17](#); section 6.3.2

<sup>3</sup> Letter from WLWB to the Review Board; [Reporting Requirement of Environmental Assessment 1314-01 Nov 4 19](#)



This Licence also entitles the Licensee to Dewater a portion of Lac du Sauvage, use water, dispose of Waste, and divert streams B0 and Ac35 around the perimeter of the Dewatered area, for the purposes of mining the Jay kimberlite pipe and carrying out Reclamation of the Jay Development, as shown in Map 3.1-3 of the Updated Project Description submitted June 7, 2016.

## Definitions

**“Back-flooding”** means the diversion of water into open pits or into the area enclosed by the Jay and North dykes, for Reclamation purposes.

**“Dam”** means an Engineered Structure that meets the definition of a dam under the *Dam Safety Guidelines* and is intended to contain, withhold, divert, or retain water or Waste. This includes the Jay Dyke and North Dyke.

**“Geochemistry Baseline Report”** means the report titled “Annex VIII: Geochemistry Baseline Report for the Jay Project” submitted to the Mackenzie Valley Environmental Impact Review Board as part of the Jay Project Developer’s Assessment Report (September 2014) for EA 1314-01.

**“Jay Development”** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Jay pit.

**“Jay Dyke”** means the horseshoe-shaped water-retaining Engineered Structure which is intended to isolate the portion of Lac du Sauvage containing the Jay kimberlite pipe, so that Dewatering and open-pit mining of kimberlite can occur.

**“Jay Dyke Review Panel”** means the expert panel established by the Licensee in accordance with Jay Report of Environmental Assessment Measure 4-4.

**“Jay Report of Environmental Assessment”** means the Report of Environmental Assessment and Reasons for Decision for EA 1314-01, dated February 1, 2016.

**“Letter of Acceptance”** means a letter signed by the Jay Dyke Review Panel members that states the Panel’s opinion that reviewed plans and materials meet good engineering standards and practice and should prevent significant adverse effects to the environment.

**“Misery Pit Minewater Management Facility”** means the mined-out Misery pit which will be used for storage of Minewater related to the Misery Underground Development and during the Jay pit Dewatering phase and during mine operations, as described in the approved **Wastewater and Processed Kimberlite Management Plan**.

**“North Dyke”** means a small water-retaining dyke constructed near the north abutment of the Jay Dyke, forming a portion of the structures that will isolate the Jay kimberlite pipe from Lac du Sauvage.

**“Traditional Knowledge Management Framework”** is a document that describes protocols for collecting, storing, managing, and using Traditional Knowledge and will apply to the lifetime of the Jay Project (Construction, operations and closure phases), as described in Measure 7-1 of the Jay Report of Environmental Assessment and required by Land Use Permit W2013D0007.

## Part B: General Conditions

1. The Licensee shall operate in accordance with the **Traditional Knowledge Management Framework** that describes protocols for collecting, storing, managing, and using Traditional Knowledge, consistent with the Jay Report of Environmental Assessment Measure 7-1.

**Part D: Conditions Applying to Water Use**

1. The Licensee may only obtain water for domestic purposes, processing, road watering, and associated uses from Long Lake Containment Facility, Koala South and East Sumps, Desperation Pond, King Pond Settling Facility, Two Rock Lake, Two Rock Sedimentation Pond, Falcon Lake, Lac de Gras, Lac du Sauvage, Grizzly Lake, Little Lake, and Thinner Lake (Misery Camp), unless otherwise approved by the Board. Water will be withdrawn using the Water Supply Facilities, unless otherwise authorized in writing by an Inspector.
2. The annual quantity of fresh water withdrawn for any purpose excluding those one-time uses described in Part D, Condition 3, shall not exceed the limits set out below (in cubic metres):

<b>Water Source</b>	<b>Timing of Use (where applicable)</b>	<b>Maximum Quantity of Water Use (m<sup>3</sup>)</b>
<b>Two Rock Lake</b>		466,000
<b>Grizzly Lake</b>		200,000
<b>Little Lake</b>		400,000
<b>Thinner Lake</b>		15,000
<b>Falcon Lake</b>		100,000
<b>Lac de Gras</b>		100,000
<b>Lac du Sauvage</b>	construction phase	500,000
	operations phase	100,000

3. Fresh water withdrawn for a one-time water use, shall not exceed the limits set out below:

<b>Water Source</b>	<b>Timing of Use (where applicable)</b>	<b>Maximum Quantity of Water Use (m<sup>3</sup>)</b>
<b>Sable Lake</b>	Dewatering	560,400
<b>Pigeon Pond</b>	Dewatering	18,500
<b>Lac du Sauvage</b> (area enclosed by Jay Dyke and North Dyke)	Dredging	1,000,000
	Dewatering	32,000,000

A one-time water use fee is to be paid prior to the commencement of each one-time water use.

**PART E: Conditions Applying to Dewatering and Drawdown**

1. Prior to the commencement of Dewatering or Drawdown, excluding Grizzly Lake, Little Lake, Thinner Lake, Falcon Lake, Lynx Lake and the area enclosed by the Jay Dyke and North Dyke, the Licensee shall submit a **Dewatering Plan or Drawdown Plan** for each lake in accordance with Schedule 4, Condition 1 to the Board for approval.
2. At least 90 days prior to the commencement of Dewatering of the area enclosed by the Jay Dyke and North Dyke, the Licensee shall submit a **Jay Dyke and North Dyke Dewatering Plan** in accordance with Schedule 4, Condition 3 to the Board for approval. Dewatering of the area enclosed by the Jay Dyke and North Dyke shall not commence until the Plan is approved by the Board.

#### **Part F: Conditions Applying to Construction**

1. The Licensee shall annually review the **Construction Plan** described in Part F, Condition 2 for the Jay Dyke and North Dyke and shall submit updates to the Board for approval, at the following times:
  - a) a minimum of 90 days prior to any proposed changes to the requirements in the approved Plan;
  - b) a minimum of 90 days prior to Dredging for the Jay Dyke and/or North Dyke, if required; and
  - c) upon request of the Board.
2. At least 90 days prior to Construction of a quarry within the footprint of the Jay Waste Rock Storage Area, the Licensee shall submit an **updated stability analysis** stamped by a Professional Engineer, that reflects the quarry, to the Board for approval.
3. Prior to the start of Construction along the centerline of all containment structures and diversion channels related to the Sable, Pigeon, Beartooth, Lynx, and Jay Development, the Licensee shall undertake a comprehensive delineation program to identify soil, rock, and ground ice conditions and shall submit the results of the program to the Board.
4. A minimum of ten days prior to commencement of Construction at each of the Sable, Pigeon, Beartooth, Lynx, Jay, and Misery Underground Developments, the Licensee shall provide written notification to an Inspector.
5. At least 60 days prior to Construction of either the Jay Dyke or North Dyke, the Licensee shall submit the final **Jay Dyke or North Dyke Design Report** in accordance with Schedule 5, Condition 3, stamped by a Professional Engineer, to the Board.
6. At least 60 days prior to Construction of either the Jay Dyke or North Dyke, the Licensee shall submit a **Letter of Acceptance** from the Jay Dyke Review Panel that indicates their review and acceptance of the final **Jay Dyke and North Dyke Design Report** referred to in Part F, Condition 11.
7. The Licensee shall construct the Jay Dyke and North Dyke according to the final **Jay Dyke and North Dyke Design Report** referred to in Part F, Condition 11.
8. The Licensee shall ensure that a Professional Engineer is retained as the Engineer of Record as described by the *Dam Safety Guidelines* for the Jay Dyke and North Dyke.
9. The Licensee shall consult with the Board, Government of the Northwest Territories, and the Independent Environmental Monitoring Agency in advance before any changes are made to the Jay Dyke Review Panel's composition and role or responsibilities.

10. Within 60 days of the effective date of Amendment #4, the Licensee shall submit the final **Terms of Reference** for the Jay Dyke Review Panel to the Board. The Licensee shall submit a revised **Terms of Reference** prior to implementation of any changes to the Panel's **Terms of Reference**.

#### **PART G: Conditions Applying to Modifications**

1. Prior to carrying out Modifications to the Jay Dyke and/or North Dyke, the Licensee shall submit to the Board, an updated **Jay Dyke and North Dyke Design Report** and a **Letter of Acceptance** from the Jay Dyke Review Panel that indicates their review and acceptance of any Modifications proposed by the Licensee. The Licensee shall not carry out Modifications to the Jay Dyke or North Dyke until this is received by the Board.

#### **Part H: Conditions Applying to Waste Disposal**

1. The Licensee shall submit a revised **Wastewater and Processed Kimberlite Management Plan**, in accordance with the detailed guidance set out in Schedule 6, Condition 1, to the Board for approval, at the following times:
  - a) A minimum of 60 days prior to the Construction of each of the Sable, Pigeon, and Lynx pits;
  - b) A minimum of 90 days prior to commencement of Dewatering of the area enclosed by the Jay Dyke and North Dyke to provide specific details related the scenarios (i.e., conditions and timing) under which the potential water-management contingency strategies for the Jay Development will be implemented;
  - c) A minimum of 90 days prior to the deposition of Processed Kimberlite into Panda and Koala pits to incorporate results of the freshwater cap optimization study required by Schedule 9, Condition 1(a);
  - d) Prior to the Misery pit reaching 40 percent of its storage capacity to include objectives, criteria, preliminary designs, triggers and Action Levels for potential operational water adaptive management strategies, based on operational monitoring data; and
  - e) As directed by the Board.
2. The Licensee shall submit a revised **Waste Rock and Ore Storage Management Plan** in accordance with the detailed guidance referred to in Schedule 6, Condition 2, to the Board for approval, at the following times:
  - a) A minimum of 90 days prior to the Construction of the Sable, Pigeon, Lynx, and Jay pits; and
  - b) As directed by the Board.
3. Within 90 days of the effective date of Amendment #4, the Licensee is to submit to the Board for approval a **Jay Waste Rock Co-placement Study Design** to optimize the co-placement strategy, determine the target NP/AP ratio, and identify the scale of mixing that will prevent Acid Rock Drainage from the Jay Waste Rock Storage Area. This Design is to be in accordance with Schedule 6, Condition 3.
4. Collection and Settling Ponds
  - c) The Licensee shall construct, operate, and maintain the Collection and Settling Ponds to design specifications such that:

- i. a minimum Freeboard limit of 1.0 metre, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
  - ii. Seepage from the Collection and Settling Ponds is minimized at all times;
  - iii. any Seepage from the Collection and Settling Ponds that occurs and does not meet effluent quality requirements, as specified in Part H, Condition 21(b) for those facilities associated with the Misery Development, Condition 21(d) for those facilities associated with the Sable Development, Condition 21(e) for those facilities associated with the Jay Development, and Condition 21(a) for those facilities associated with the remainder of the Project, shall be collected and immediately returned to the Collection and Settling Ponds, the Long Lake Containment Facility, the Two Rock Sedimentation Pond, the Misery Pit Minewater Management Facility, the process plant, or another location approved by the Board; and
  - iv. any constructed facilities that are eroded are repaired immediately.
- b) Inspections of the Collection and Settling Ponds shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and
- c) An inspection of the Collection and Settling Ponds shall be carried out annually in July by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer.

5. Jay Dyke and North Dyke

- a) The Licensee shall construct, operate, and maintain the Jay Dyke and North Dyke to engineering standards such that at a minimum they comply with the *Dam Safety Guidelines*, and are in accordance with the following:
- i. A minimum Freeboard limit of 1.4 meters for the North Dyke and 1.7 meters for the Jay Dyke, or other Freeboard limits as recommended by a Professional Engineer, shall be maintained at all times.
  - ii. Prior to the implementation of a Freeboard limit different from that described in Part H, Condition 12(a)(i), the Licensee shall submit a **Letter of Acceptance** from the Jay Dyke Review Panel that indicates their review and acceptance of the revised Freeboard limit.
- b) The Licensee shall install and maintain geotechnical instrumentation in the Water Retention Dykes as described in the **Jay Dyke and North Dyke Final Design Report**, described in Part F, Condition 11;
- c) Weekly inspections of the Jay Dyke and North Dyke shall be conducted and the records of these inspections and all monitoring records shall be kept for review upon request of an Inspector;
- d) Any deterioration or erosion of any Engineered Structures associated with the Jay Dyke and/or North Dyke shall be reported to an Inspector and repaired immediately; and
- e) An inspection of the Jay Dyke and North Dyke shall be carried out annually in July by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the

Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan for addressing each of the Engineer’s recommendations.

6. The Licensee shall conduct Dam Safety Reviews of the Jay Dyke and North Dyke commencing five years following the completion of Dewatering of the area enclosed by the Jay Dyke and North Dyke, and every five years thereafter or at a frequency approved by the Board.
7. The Dam Safety Reviews shall be conducted in accordance with the *Dam Safety Guidelines* by a Professional Engineer. The timing of the Dam Safety Review inspection will be at the discretion of the review Engineer conducting the Inspection.
8. Within six months of completing the Dam Safety Review inspection referred to in Part H, Condition 13, the Licensee shall submit to the Board:
  - a) the Engineer's **Dam Safety Review Report**; and,
  - b) an **Implementation Plan** outlining how the Licensee will respond to each recommendation in the Engineer’s **Dam Safety Review Report**, including a rationale for any decisions that deviate from the Engineer's recommendations.
9. Within nine months of completing a Dam Safety Review inspection under Part H, Condition 13, the Licensee shall submit to the Board a **Letter of Acceptance** from the Jay Dyke Review Panel indicating their review and acceptance of the **Implementation Plan** described in Part H, Condition 15(b).
10. Following completion of initial Dewatering, as described in the approved **Jay Dyke and North Dewatering Plan** required under Part E, Condition 3, all water from the Jay Development shall be directed to the Misery Pit Minewater Management Facility and/or Lynx pit, unless otherwise authorized by the Board.
11. Effluent Quality Criteria (EQC)
  - d) All water or Waste from the Project that enters the Receiving Environment, including all Discharges at Surveillance Network Program Station 1616-30, but excluding those Discharges listed in Part H, Conditions 21(b), 21(c), 21(d), 21(e), and 25, shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Dissolved Aluminum	0.1	0.2
Total Antimony	0.01	0.02
Total Arsenic	0.004	0.008
Chloride	$116.6(\ln[\text{Hardness}]) - 204.1$	$2(116.6(\ln[\text{Hardness}]) - 204.1)$
Nitrate – N	$e^{(0.9518(\ln[\text{Hardness}]) - 2.032)}$	$2(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$
Nitrite – N	0.06	0.12
Potassium	53	103
Total Selenium	0.001	0.002
Total Strontium	3.0	6.0
Sulphate	$e^{(0.9116(\ln[\text{Hardness}]) + 1.712)}$	$2(e^{(0.9116(\ln[\text{Hardness}]) + 1.712)})$

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Suspended Solids	15	25
Total Petroleum Hydrocarbons	3.0	5.0

Hardness to be used in the equations shown above is the hardness as analyzed from the sample collected at the same time at Surveillance Network Program Station 1616-30, with the following limits:

- i. for nitrate and chloride: up to a maximum hardness of 160 mg/L (if hardness exceeds 160 mg/L, 160 mg/L will be used in the equations); and
- ii. for sulphate: up to a maximum hardness of 115 mg/L (if hardness exceeds 115 mg/L, 115 mg/L will be used in the equations).

A quick-reference table of EQC for chloride, nitrate, and sulphate is included in Schedule 6, Condition 8.

- e) All water or Waste from the Jay Development that enters the Receiving Environment, including all Discharges at Surveillance Network Program Station Jay-0005a/b, but excluding those listed in Part H, Condition 25, shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)	Annual Loading Limit
Chloride	lesser of  $0.8215(((116.6(\ln[\text{hardness}]) - 204.1) / 13,920,000 - 3,192,000) / 1,152,000)$	$10^{(0.297(\text{Log}[\text{Effluent Hardness}] + 2.232))}$	
	OR		
	$10^{(0.297(\text{Log}[\text{Effluent Hardness}] + 2.232))}$		
Nitrate	$0.8215(((e^{(0.9518(\ln[\text{hardness}]) - 2.032})} / 13,920,000 - 38,300) / 1,152,000)$ (mg N/L)	$1.6483(((e^{(0.9518(\ln[\text{hardness}]) - 2.032})} / 13,920,000 - 38,300) / 1,152,000)$ (mgN/L)	
Total Ammonia	9 (mg N/L)	14 (mgN/L)	
Total Phosphorus			130-890 (kg P/yr)
Cadmium	0.0002	0.0003	
Chromium	0.003	0.006	
Cobalt	0.02	0.04	
Copper	0.006	0.02	
Iron	2	4	

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)	Annual Loading Limit
Lead	0.02	0.04	
Uranium	0.033	0.033	
Dissolved Aluminum	0.4	0.8	
Total Suspended Solids	15	25	
Total Petroleum Hydrocarbons	3.0	5.0	

In the equations shown above, hardness refers to lake hardness, as analyzed in the most recent sample at SNP station Jay-0005c, and effluent hardness is analyzed in the most recent sample collected at SNP station Jay-0005a/b, with the following limits:

- i. for nitrate and chloride: a maximum hardness of 160 mg/L at SNP station Jay-0005c (if Hardness exceeds 160 mg/L, 160 mg/L will be used in the equations);
- ii. for chloride: a maximum effluent hardness of 300 mg/L at station Jay-0005a/b (if effluent hardness exceeds 300 mg/L, 300 mg/L will be used in the equations);

The total phosphorus annual loading limit is variable depending on the year of Discharge: Refer to Schedule 6 Condition 8 for limits that apply each year. Operational Discharge from Misery pit shall be managed to prevent the appearance of any visible hydrocarbon film on the surface of Lac du Sauvage. A quick-reference table of EQC for chloride, total phosphorus, and nitrate is included in Schedule 6, Condition 8.

- f) All water or Waste from the Project that enters the Receiving Environment, including Discharges at Surveillance Network Program Station 1616-30, 1616-43, and 0008-Sa3 shall be non-acutely toxic as determined by the acute toxicity tests described in Part A in the attached Surveillance Network Program.

12. With submission of the revised Wastewater and Process Kimberlite Management Plan, required by Part H, Condition 2(d), the Licensee shall submit a **Misery Pit Update Report** to the Board. This Report shall include at minimum:

- a) summary comparing model predictions against measured water quality data in Misery pit, including but not limited to TDS and chloride;
- b) description of the stability of meromixis in Misery pit; and
- c) description of whether any additional evaluation is required.

13. At least two years prior to Discharge from the Misery pit, the Licensee will submit a **Misery Pit Water Quality Report** in accordance with Schedule 6, Condition 5 on the updated water quality model to the Board for approval. Discharge shall not occur from Misery pit until this Report is approved by the Board.



14. The Licensee shall ensure that Construction of the Jay Dyke and North Dyke, and associated in-lake activities, meet the following criteria at SNP Station Jay-0010 to Jay-0015 inclusive, when active:
  - a) the maximum concentration for TSS remain below 50 mg/L in any daily sample;
  - b) the average concentration over any 30-day period shall not exceed 25 mg/L TSS;
  - c) all samples shall be taken on a depth-integrated basis; and
  - d) each depth-integrated sample shall consist of a continuous sample taken between 1 m from the lake bottom to 1 m below the lake surface.
15. Within 12 months of the beginning of Discharge from the Misery Pit Minewater Management Facility, the Licensee shall submit a **Misery Plume Delineation Report** to the Board. This Report will include the results of a plume delineation study designed to describe dispersion of effluent into Lac du Sauvage from the Misery Pit Minewater Management Facility. This Report shall be in accordance with Schedule 6, Condition 7. An updated plume delineation study may be required as directed by the Board.
16. At least six months prior to the commencement of Dewatering of the area enclosed by the Jay Dyke and North Dyke, the Licensee shall submit a **Jay Dyke and North Dyke Operation, Maintenance, and Surveillance Manual** in accordance with the *Dam Safety Guidelines* to the Board. This Manual shall include triggers for the use of a depressurization system.
17. At least six months prior to the commencement of Dewatering of the area enclosed by the Jay Dyke and North Dyke, the Licensee is to submit a **Letter of Acceptance** from the Jay Dyke Review Panel that indicates their review and acceptance of the **Jay Dyke and North Dyke Operation, Maintenance, and Surveillance Manual** referred to in Part H, Condition 34.
18. No later than 30 days following a material change to the **Jay Dyke and North Dyke Operation, Maintenance, and Surveillance Manual** referred to in Part H, Condition 34, the Licensee shall notify the Board and submit the revised Manual to the Board.
19. No later than six months following a material change to the **Jay Dyke and North Dyke Operation, Maintenance, and Surveillance Manual** referred to in Part H, Condition 34, the Licensee shall submit a **Letter of Acceptance** from the Jay Dyke Review Panel to the Board.

#### **PART I: Conditions Applying to Contingency Planning**

1. The Licensee shall review and update the Board-approved **Spill Contingency Plan** as necessary to reflect changes in operation and technology, as well as 60 days prior to the Construction of each of the Sable, Pigeon, Lynx, and Jay pits. Any proposed updates shall be in accordance with Indian and Northern Affairs Canada's *Guidelines for Spill Contingency Planning, 2007*, or subsequent editions, and shall be submitted to the Board for approval.

#### **PART J: Conditions Applying to Aquatic Effects Monitoring**

1. The Licensee shall operate in accordance with the approved **AEMP Design Plan**. The Licensee shall submit a revised **AEMP Design Plan**, that satisfies the objectives of Part J, Condition 1, and the requirements of Schedule 8, Condition 1, to the Board for approval, at the following times:

- a) At least one year prior to commencement of Construction at each of the Pigeon and Sable pits;
- b) At least six months prior to commencement of Dewatering of Lynx Lake; and
- c) Within six months of the effective date of Amendment #4.

The revised AEMP Design Plan shall include those sampling stations necessary to determine short- and long-term effects in the Receiving Environment as a result of the Pigeon, Sable, Lynx, or Jay Development.

**PART K: Conditions Applying to Closure and Reclamation**

1. The Licensee shall not permanently cover lakebed sediments and/or glacial till that result from the Construction of the Jay pit area and are deposited into the Jay Waste Rock Storage Area, or otherwise make this material unavailable for future use in Reclamation, unless approved by the Board.
2. The Licensee will make all reasonable efforts to establish and stabilize meromixis to ensure that water quality in the Misery pit and Jay pit is compatible with traditional uses after closure.
3. If the Licensee is unable to establish and stabilize meromixis as described in Part K, Condition 9, the Licensee will implement contingencies to ensure the pit lake water quality is compatible with traditional use after closure. The Licensee shall not implement any contingency until approved by the Board.

**Schedule 1**

**Part B: General Conditions**

Measuring and Reporting on Water and Waste:

- a) The monthly elevations of water during the open-water season for Grizzly Lake, Little Lake, Thinner Lake, Upper Panda Lake, Cell E of the Long Lake Containment Facility, the King Pond Settling Facility, the Two Rock Sedimentation Pond, Misery pit during its use as the Misery Pit Minewater Facility, and Lynx pit during its use for Misery Underground Development and Jay Minewater management;
- b) The monthly and annual quantities in cubic metres of each Waste deposited into the Long Lake Containment Facility, King Pond Settling Facility, Phase 1 Tailings Containment Area, and Two Rock Sedimentation Pond, the Misery Pit Minewater Facility, and Lynx pit during its use for Misery Underground Development and Jay Minewater management;
- c) Tabular summaries of all data and information generated under the Surveillance Network Program and graphical summaries of parameters in the effluent quality criteria under Part H at the points of compliance (SNP stations 1616-30, 1616-43, 1616-47, 0008-Sa3, Jay-0005a/b) in an electronic format acceptable to the Board. The Licensee shall provide raw data in electronic form upon request by the Board;
- d) The monthly and annual quantities of overburden removed from dyked area;

Management Plans and Activities:

- a) A summary of all work carried out over the last year under the approved Management Plans referred to in Part H, Conditions 1 through 3 of this Licence including:
  - i. tracking and documenting of Jay Waste Rock placement by rock type;

- ii. results of Waste Rock sampling within the Jay open pit to confirm geochemical characteristics and geological mapping of the benches sampled;
  - iii. results of sampling and field inspection program to confirm Jay Waste Rock placement; and
  - iv. results of Groundwater monitoring and reporting program for the open pits during operations for the Jay Development in accordance with the approved **Wastewater and Processed Kimberlite Management Plan**;
- e) A summary of any Modifications carried out in accordance with Part G of this Licence and/or major maintenance work carried out on any water or Waste management facilities including, but not limited to, Water Supply Facilities, Collection and Settling Ponds, Long Lake Containment Facility, King Pond Settling Facility, Sewage Treatment Facilities, Two Rock Sedimentation Pond, Pigeon Diversion Channel, Jay and North Dyke, Sub-Basin B Diversion Channel, and associated structures;
- f) A summary of any revisions to the approved:
- i. **Construction Plan** for the Jay and North Dyke referred to in Part F, Condition 3;

Other Reporting Requirements:

- a) Any changes to the Engineer of Record for the Jay Dyke and North Dyke.

**Schedule 2**

**Part C: Conditions Applying to Security Deposits**

1. In accordance with subsection 35(1) of the Act and Part C of this Licence, the Licensee shall post and maintain:
  - a) additional security deposits on the following schedule:
    - i. At least 60 days prior to commencement of Jay dyke construction, the Licensee shall post and maintain an additional CDN \$4,591,701.
    - ii. At least 60 days prior to commencement of Jay open pit mining, the Licensee shall post and maintain an additional CDN \$3,155,704.

**Schedule 4**

**Part E: Conditions Applying to Dewatering and Drawdown**

1. The **Jay Dyke and North Dyke Dewatering Plan** referred to in Part E, Condition 3 shall include, but not be limited to, the following information:
  - a) Schedule for Dewatering;
  - b) Volume of water produced by Dewatering to each Discharge location;
  - c) The expected quality of water to be discharged to Lac du Savage;
  - d) Pumping methods including locations of intake and outflow structures;
  - e) Maximum pumping rates with rationale;
  - f) The design of any erosion prevention structures in the areas where water or Waste is Discharged;
  - g) A description of, and mitigation measures for, any predicted hydrological or water quality impacts to downstream water bodies;

- h) The schedule and locations for that water quality monitoring necessary to evaluate any effects to the Receiving Environment caused by Dewatering the area enclosed by the Jay Dyke and North Dyke, with rationale;
- i) The frequency, location, and procedures for monitoring flow rates in the Discharge stream and if appropriate, in the receiving water body;
- j) The design of the pipeline and related facilities which includes considerations for preventing/mitigating erosion at the Discharge locations and how that has been incorporated into the design of the Dewatering pumping and pipeline system;
- k) The procedures and rates for Dewatering to minimize erosion of the downstream water bodies, adjacent shorelines and, in winter, damage to spawning habitat from the development of icings, overflows, or glaciation; and
- l) A description of how the Licensee will link the results of monitoring to those corrective actions necessary to prevent or minimize any Dewatering-related effects to the Receiving Environment. The description shall include, but not be limited to:
  - i. Definitions, with rationale, of Action Levels applicable to monitoring identified under Schedule 4, Condition 3 (h) and (i). At a minimum, Action Levels should be set that:
    - 1. define a level of Discharge quality or receiving water quality that indicates that water from the area enclosed by the Jay Dyke and North Dyke should cease to be discharged to the Receiving Environment and be redirected to the Misery Pit Minewater Management Facility; and
    - 2. define a level of Discharge quality or receiving water quality that indicates that additional monitoring (i.e., through the SNP or AEMP) should be undertaken;
  - ii. For each Action Level, a description of how exceedances of the Action Level will be assessed and generally which types of actions may be taken if the Action Level is exceeded.

## Schedule 5

### Part F: Conditions Applying to Construction

- a) The **Construction Plans** for the Pigeon Stream Diversion Channel and the Sub-Basin B Diversion Channel, are also to include the details of measures to prevent degradation of permafrost and/or ice lenses;
- b) The **Construction Plan** for the Jay Dyke and North Dyke is also to include, but not be limited to, the following:
  - i. A description of Dredging activities planned, including but not limited to the following:
    - 1. Schedule of Dredging Activities;
    - 2. Dredging equipment design and operation;
    - 3. Production rates;
    - 4. Operational approaches for minimizing sediment disturbance;

5. A description of where dredged material will be located, if deemed necessary, and any implications for the Jay Waste Rock Storage Area Design; and
  6. Final monitoring plan details;
  - ii. A description of specific mitigation measures in consideration of Construction during and between different seasons;
  - iii. A description of adaptive management monitoring and mitigations, including but not limited to:
    1. A description of mitigation and management of fine sediments between the dyke and turbidity barriers;
    2. A description of how the TSS-turbidity relationship will be established and validated;
    3. A description of the actions to be taken in the event of a TSS exceedance of the limits set out in Part H, Condition 26;
    4. A description of triggers and actions in response to weather events; and
    5. Seven-day rolling average TSS concentration triggers and associated actions, in consideration of Construction during and between different seasons.
2. A **Waste Rock Storage Area Design Report**, referred to in Part F, Condition 4 shall include, but not be limited to:
- a) In addition, in the case of the Jay WRSA, the Report shall include, but not be limited to:
    - i. relevant background information;
    - ii. a description of the facilities to be constructed, including proposed locations;
    - iii. quantities of Waste material;
    - iv. discussion of setback distance of potentially acid generating rock within the Jay Waste Rock Storage Area, with rationale;
    - v. a summary of the results of the Study conducted in accordance with the approved Jay Waste Rock Co-placement Study Design referred to in Part H, Condition 4, and any implications for the Waste Rock Storage Area Final Design Report;
    - vi. design drawings and specifications of Engineered Structures, stamped by a Professional Engineer;
    - vii. summary of results of the geotechnical investigation to confirm foundation characteristics, including ground truthing and field reconnaissance study for the Jay Project, and a description of any implications for the Jay Waste Rock Storage Area design and routing for surface runoff and Seepage;
    - viii. Construction considerations, including timing, sequencing, and a schedule;
    - ix. operations and maintenance requirements;
    - x. detailed instrumentation and monitoring plans, including but not limited to sampling;
    - xi. locations, parameters measured, and frequencies of sampling to be carried out; and
    - xii. description of where dredged material will be located, if deemed necessary, and any implications for the Jay Waste Rock Storage Area Design.

3. **Jay Dyke and North Dyke Design Report** referred to in Part F, Condition 11 shall include, but not be limited to, the following:
- a) Jay Dyke and North Dyke detailed design drawings. These drawings should be:
    - i. Signed and stamped by an engineer;
    - ii. Labeled “issued for-Construction” or equivalent; and
    - iii. Include an itemized list of revisions to design;
  - b) An evaluation of the critical hydraulic gradient used in the dyke design, in consideration of the laboratory testing completed on the lakebed sediments; and
  - c) Description of adaptive management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the environment.

### Schedule 6

#### Part H: Conditions Applying to Waste Disposal

##### Wastewater and Processed Kimberlite Management

- a) A list of contingencies to manage water for the Jay Project and an evaluation of the feasibility of each;
  - b) A description of the scenarios (i.e., conditions and timing) under which contingencies required by paragraph (k) will be implemented;
  - c) Identify which of the contingencies identified in Schedule 6, Condition 1(k), are preferred by the Licensee, with rationales, for each scenario;
2. The **Waste Rock and Ore Storage Management Plan** referred to in Part H, Condition 3 shall be in accordance with the Department of Indian and Northern Affairs and Northern Development’s *Guidelines for Acid Rock Drainage Protection in the North*, September 1992, or in the case of the Jay Development, Mine Environment Neutral Drainage’s *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials*, December 2009, and shall include, but not be limited to, the following information:
- a) For the Jay Waste Rock Storage Area, identification of the “effective” neutralization potential (NP) in Waste Rock as defined by Mine Environment Neutral Drainage’s *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials*, December 2009;
  - b) For the Jay Waste Rock Storage Area, the proposed target neutralization potential to acid potential (NP/AP) ratio for bulk rock in the Jay Waste Rock Storage Area, with a detailed rationale that addresses the effective NP, the results of the Geochemistry Baseline Report and the results of the Waste Rock Co-placement Study referred to in Part H, Condition 4;
  - c) A description of Waste Rock sampling within the Jay open pit to confirm geochemical characteristics;
  - d) For the Jay Waste Rock Storage Area, a detailed monitoring plan for description of deformation, Seepage, and thermal monitoring, including parameters and frequency of sampling for the Waste Rock Storage Area;
  - e) Description of anticipated slope movement during rock placement at the Jay Waste Rock Storage Area and the associated monitoring and mitigation measures;

- f) Discussion of setback distance of potentially acid generating rock within the Jay Waste Rock Storage Area, with rationale;
  - g) Discussion of how the results of the Study conducted in accordance with the approved **Jay Waste Rock Co-placement Study Design** referred to in Part H, Condition 4 were considered in the proposed Waste Rock and ore management;
  - h) Discussion of potential Seepage quality issues for the Jay Waste Rock Storage Area including thresholds and triggers for adaptive management
3. The study outlined in the **Jay Waste Rock Co-placement Study Design**, referred to in Part H, Condition 4, shall investigate at minimum the following:
- a) the sensitivity of effective neutralizing potential/acid potential (NP/AP) to imperfect mixing for the propose co-placement management plan;
  - b) whether the effective neutralizing potential/acid potential (NP/AP) characteristics of the fine rock fractions for metasediments, granite, and diabase are different in samples of rock blasted during mining than in samples of rock prepared for humidity cell testing, and if so, a means of accounting for the differences when managing the proposed co-placement of rock in the WRSA;
  - c) how to optimize co-placement methods of blending and layering for the proposed co-placement of the potentially acid generating (PAG) and non-PAG rock to prevent acid rock drainage and metal leaching; and
  - d) any other testing or analysis that will inform the most appropriate NP/AP ratio and the co-placement method, limits, and controls for blending and/or layering.
4. The **Misery Pit Water Quality Report** referred to in Part H, Condition 23 shall include but not be limited to the following:
- a) A report summarizing the assumptions and results of the updated water quality model;
  - b) A description of how the updated water quality model has considered monitoring data available for Discharge from the KPSF during the Misery Underground Development, and initial filling of Misery pit, with rationale;
  - c) A description of any implications of water quality changes on the downstream environment;
  - d) An assessment based on the results of Schedule 6, Condition 5(a) of whether the EQC as outlined in Part H, Condition 21(e), including but not limited to Phosphorus, require re-evaluation prior to Discharge; and
  - e) One of the following:
    - i. A description of whether the modelling results demonstrate that the Licensee will be able to ensure Part K, Condition 9 will be satisfied, with rationale, or
    - ii. Propose any revisions to the approved **Wastewater and Processed Kimberlite Management Plan** described in Part H, Condition 2, to satisfy Part K, Condition 9.
    - iii.

5. The **Misery Plume Delineation Report** referred to in Part H, Condition 32 shall include, but not be limited to, the following information:
- The results of monitoring the initial mixing of effluent into Lac du Sauvage; and
  - Propose locations for Surveillance Network Program Station Jay-0005c that will allow verification of initial effluent mixing in Lac du Sauvage.
6. The EQC for chloride, nitrate, and sulphate are determined based on the equations shown in Part H, Conditions 21(a), 21(b), 21(c), and 21(e). Tables that can be used for quick reference of select values resulting from those equations are provided below:

Hardness in Lac du Sauvage (i.e., at Jay-0005c) (mg/L)	Hardness-dependent Chronic WQO	EQC at Jay-0005a/b
	Chloride (mg/L)	Chloride (mg/L)
		Max. Average
5	64	631
10	64	635
15	112	1,102
20	145	1,434
25	171	1,692
30	192	1,902
Chloride concentrations shaded in grey are above the maximum grab EQC. As a result, the Maximum Average Concentration should be set equal to the maximum grab concentration.		

Hardness in Discharge (i.e., at Jay-0005a/b) (mg/L)	Hardness-dependent Acute WQO	EQC at Jay-0005a/b
	Chloride (mg/L)	Chloride (mg/L)
		Max. Grab
50	545	545
100	670	670
150	756	756
200	823	823
250	879	879
300	928	928
>300	N/A	928

Hardness in Lac du Sauvage (i.e., at Jay-0005c) (mg/L)	EQC at Jay-0005a/b	
	Nitrate (mg/L)	
	Max. Average	Max. Grab
5	12	23



<b>10</b>	<b>12</b>	<b>23</b>
<b>15</b>	<b>17</b>	<b>34</b>
<b>20</b>	<b>22</b>	<b>45</b>
<b>25</b>	<b>28</b>	<b>56</b>
<b>30</b>	<b>33</b>	<b>66</b>
<b>35</b>	<b>38</b>	<b>77</b>

<b>Operations Year</b>	<b>Annual Loading Limit in Lac du Sauvage during Jay Operations</b>
	<b>Total Phosphorus (kg P/yr)</b>
<b>6</b>	380
<b>7</b>	440
<b>8</b>	655
<b>9</b>	705
<b>10</b>	805
<b>11</b>	870
<b>12</b>	890
<b>13</b>	880
<b>14</b>	130

**Schedule 8**

**Part J: Conditions Applying to Aquatic Effects**

1. The **AEMP Design Plan** for the Aquatic Effects Monitoring Program referred to in Part J, Conditions 2, 3, and 4 shall include, but not be limited to, the following:
  - a) The establishment of sufficient monitoring sites within the Zone of Influence including sites located at:
    - i. Lac du Sauvage in the vicinity of the Jay Development (when constructed), including, but not limited to, the Narrows; and
  - b) A summary table of all baseline data that will be utilized in AEMP for the Jay Development and a description of any additional baseline data to be collected;
  - c) A description of comparisons to be made to baseline data for the Jay Development, including:
    - i. identification of the baseline and proposed sampling stations, and parameters to be compared,
    - ii. a description of why the baseline stations are considered comparable to the proposed stations,
    - iii. a description of variability in each baseline data set, and
    - iv. based on Schedule 6, Condition 1(s)(i-iii), an estimation of the magnitude of change that could be reliably detected in each planned comparison;
  - d) An evaluation, based on the information in Schedule 6, Condition 1(s), of the adequacy of the baseline data to support the objectives of the AEMP;

- e) A summary of the results of the reconnaissance study and provide recommendations for the use of Thonokied Lake as the reference lake for the AEMP, or for the selection of another potential reference lake; and
  - f) An evaluation of the use of Slimy Sculpin as a sentinel species for detecting effects due to the Jay Development, including recommendations for sample sizes, frequency, locations, and measured parameters as well as a description of contingencies if adequate sample sizes cannot be achieved.
2. The **Response Plan** referred to in Part J, Condition 9(b) shall contain the following information for each parameter that has exceeded an Action Level:
- a) For hydrology-related parameters at the Narrows, a description of how the Action Levels proposed will ensure water levels at the Narrows are maintained such that the Jay Development does not adversely affect fish passage and the continuation of traditional use of the area as an open water source; and

## **Schedule 9**

### **Part K: Closure and Reclamation**

1. The **Interim Reclamation and Closure Plan** shall include, but not be limited to:
- a) Reclamation Research Plans related to the uncertainty associated with, but not limited to the following:
    - i. Freshwater cap depth of Jay pit;
    - ii. Freshwater cap depth of Misery pit;
    - iii. Closure of the Sub-Basin B Diversion Channel;
    - iv. Jay Dyke breaching and Back-flooding; and
  - b) Description of engagement on the use of glacial till and overburden material for vegetation at Jay site and also for the main Ekati site;
  - c) Closure objectives and criteria for the Jay Project components, including but not limited to the following:
    - i. Jay pit;
    - ii. Misery pit;
    - iii. Lynx pit; and
    - iv. Jay Waste Rock Storage Area;



Box 32, Wekweètì, NT X0E 1W0  
Tel: 867-713-2500 Fax: 867-713-2502  
#1-4905 48<sup>th</sup> Street, Yellowknife, NT X1A 3S3  
Tel: 867-765-4592 Fax: 867-765-4593  
www.wlwb.ca

Pursuant to the *Mackenzie Valley Resource Management Act* and Regulations, the Wek'èezhii Land and Water Board, hereinafter referred to as the Board, hereby grants to:

**Arctic Canadian Diamond Company Ltd.**

**(Licensee)**

of **900-606 4 Street SW, Calgary, Alberta, T2P 1T1**

**(Mailing Address)**

Hereinafter called the Licensee, the right to alter, divert or otherwise use water, and deposit waste for purposes of Mining and Milling, subject to the provisions contained in the *Waters Act* and Regulations made thereunder and subject to and in accordance with the terms and conditions specified in this Licence.

Licence Number: W2020L2-0004 (Formerly W2012L2-0001)

Licence Type: A

Water Management Area: NORTHWEST TERRITORIES 07

Location: LAC DE GRAS, NT

Purpose: WATER USE AND WASTE DISPOSAL

Description: DIAMOND MINING AND MILLING

Quantity of water not to be exceeded: SEE PART D, CONDITIONS 2 AND 3

Effective Date of Licence: 19-AUG-2021

Amendment Date of Licence: XXXXXXXXXXXX

Expiry Date of Licence: OCTOBER 18, 2023

This Licence issued and recorded at Yellowknife, NT includes and is subject to the annexed conditions.  
**Wek'èezhii Land and Water Board:**

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Chair

**APPROVED BY:**

\_\_\_\_\_  
**Minister of Environment and Natural Resources**

## TABLE OF CONTENTS

Part A: Scope and Definitions

Part B: General Conditions

Annual Report – Schedule 1

Part C: Conditions Applying to Security Deposits

Security Requirements – Schedule 2

Part D: Conditions Applying to Water Use

Department of Fisheries and Oceans' Guidelines and Protocols – Schedule 3

Part E: Conditions Applying to Dewatering and Drawdown

Dewatering Plan or Drawdown Plan – Schedule 4, Condition 1

Lynx Lake Dewatering Plan – Schedule 4, Condition 2

Summary Reports – Schedule 4, Condition 3

Part F: Conditions Applying to Construction

Construction Plan – Schedule 5, Condition 1

Waste Rock Storage Area Design Report – Schedule 5, Condition 2

Part G: Conditions Applying to Modifications

Part H: Conditions Applying to Waste Disposal

Wastewater and Kimberlite Processed Management Plan – Schedule 6, Condition 1

Waste Rock and Ore Storage Management Plan – Schedule 6, Condition 2

Seepage Surveys – Schedule 6, Condition 3

Two Rock Outfall Report – Schedule 6, Condition 4

Tables for Hardness-Related EQC – Schedule 6, Condition 5

Seepage Prediction Report – Schedule 6, Condition 6

Part I: Conditions Applying to Contingency Planning

Hydrocarbon-Contaminated Materials Management Plan – Schedule 7

Part J: Conditions Applying to Aquatic Effects Monitoring

AEMP Design Plan – Schedule 8, Condition 1

Aquatic Effects Re-Evaluation Report – Schedule 8, Condition 2

AEMP Annual Report – Schedule 8, Condition 3

Response Plan – Schedule 8, Condition 4

Nitrogen Response Plan – Schedule 8, Condition 5

Part K: Conditions Applying to Closure and Reclamation

Interim Closure and Reclamation Plan – Schedule 9

Annex A: Schedules

Annex B: Surveillance Network Program

Annex C: Water Licence Revision History



## Part A: Scope and Definitions

### 1. Scope

- a) Subject to the terms and conditions of this Licence, the Licensee may divert water from Upper Panda Lake to Kodiak Lake, and use water and dispose of Waste for the purpose of mining the Panda, Koala, Koala North, Misery, and Fox kimberlite pipes, for operating the processing facilities and related infrastructure, and carrying out Reclamation associated with diamond mining within the Koala, Misery, King-Cujo, Desperation-Carrie, and Lac du Sauvage Watersheds of the Lac de Gras basin, Northwest Territories.

This Licence entitles the Licensee to use water, Dewater Sable, Pigeon, and Beartooth Lakes for the purpose of mining, to Drawdown Two Rock Lake, divert Pigeon Stream around the Pigeon pit, pipe water from Bearclaw Lake outflow around Beartooth pit, and deposit Processed Kimberlite into a Processed Kimberlite Containment Area for the purpose of creating a pit lake. The Licensee may also dispose of Waste for industrial undertakings in diamond mining and processing, production, Reclamation and associated uses in the Koala, Pigeon, and Sable watersheds, Northwest Territories as shown on Figure 6, 8, & 10 of the Class A Water Licence and Land Use Permits supporting documents, submitted August 21, 2001.

This Licence entitles the Licensee to Dewater Lynx Lake, use water, dispose of Waste, and divert runoff around the Lynx pit, for the purposes of mining the Lynx kimberlite pipe and carrying out Reclamation of the Lynx Development.

This Licence also entitles the Licensee to use water, dispose of Waste, and divert Groundwater inflows for the purposes of underground mining of the Misery kimberlite pipe and carrying out Reclamation of the Misery Underground Development, as described in the Application submitted August 15, 2017 and the additional information submitted during the regulatory process.

This Licence also entitles the Licensee to Dewater Point Lake, use water, and dispose of Waste, for the purposes of mining the Point Lake, Phoenix and Challenge kimberlite pipes and carrying out Reclamation of the Point Lake Development.

The activities listed above are to be conducted as described in the relevant portions of the approved Environmental Impact Assessments and determinations made under Part 5 of the MVRMA.

- b) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of Waste of any type in any waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any waters.
- c) Compliance with the terms and conditions of this Licence does not excuse the Licensee from its obligation to comply with the requirements of any applicable Federal, Territorial, Tłıchǰ, or Municipal laws.



## 2. Definitions

**"Acid/Alkaline Rock Drainage (ARD)"** means the production of acidic or alkaline leachate, Seepage or drainage from underground workings, ore piles, Waste Rock, Processed Kimberlite, and overburden that can lead to the release of metals to Groundwater or surface water during the life of the mine and after mine closure.

**"Act"** means the *Waters Act*.

**"Action Level"** means a predetermined change, to a monitored parameter or other qualitative or quantitative measure, that requires the Licensee to take appropriate actions that may include, but that are not limited to: further investigations, changes to operations, or enhanced mitigation measures.

**"Analyst"** means an Analyst designated by the Minister under subsection 65(1) of the Act.

**"Aquatic Effects Monitoring Program"** means a monitoring program designed to determine the short- and long-term effects in the Receiving Environment resulting from the Project; to evaluate the accuracy of impact predictions; to assess the effectiveness of planned impact mitigation measures; and to identify additional impact mitigation measures to reduce or eliminate environmental effects.

**"Back-flooding"** means the diversion of water into open pits for Reclamation purposes.

**"Board"** means the Wek'èezhii Land and Water Board established under section 57.1 of the *Mackenzie Valley Resource Management Act*.

**"Coarse Processed Kimberlite"** means coarse material, as defined in the approved **Wastewater and Processed Kimberlite Management Plan**, rejected from the process plant after the recoverable diamonds have been extracted.

**"Collection and Settling Ponds"** are containment structures used to collect water and/or Waste or to settle solids suspended in Minewater. This definition does not include Sumps and Collection and Settling Ponds that are adjacent to active mining areas or within an open pit such that all Seepage or overflow would flow into the pit.

**"Contaminated Snow Containment Facility"** is the lined area set aside within the Waste Rock Storage Areas for the containment of snow and ice contaminated by hydrocarbons and other products as approved of in the **Hydrocarbon-Contaminated Materials Management Plan**.

**"Construction"** means any activities undertaken to construct or build any components of, or associated with, the development of the Project.

**"Dam"** means an Engineered Structure that meets the definition of a dam under the *Dam Safety Guidelines* and is intended to contain, withhold, divert, or retain water or Waste.

**"Dam Safety Guidelines"** means the Canadian Dam Association's (CDA) *Dam Safety Guidelines*, 2007 or subsequent editions. The scope and applicability of the *Dam Safety Guidelines* referred to in this Licence, is presented in section 1 of the DSG.

**"Dewatering"** means the removal of all water from a natural water body or the portion of a natural waterbody enclosed by Engineered Structures.

**"Discharge"** means the direct or indirect release of any water or Waste to the Receiving Environment.



**"Drawdown"** means the partial removal of water from a natural water body or the portion of a natural waterbody enclosed by Engineered Structures.

**"Dredging"** means excavating and moving lake-bottom sediments and glacial till from below the ordinary high water mark and from the bottom of Lac du Sauvage in the area of the footprints of the dykes.

**"Engagement Plan"** means a document, developed in accordance with the MVLWB *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

**"Engineered Structure"** means any structure or facility designed and approved by a Professional Engineer.

**"Environmental Impact Assessments"** means one or all of the 1995 Environmental Impact Assessment of the 1994 NWT Diamonds Project Description conducted under the EARP Guidelines Order, or the Environmental Assessment of Licence application N7L2-1736 conducted under Part 5 of the *Mackenzie Valley Resource Management Act*, or EA 13-14-01 conducted under Part 5 of the *Mackenzie Valley Resource Management Act* or all of them as the context requires.

**"Fine Processed Kimberlite"** means fine material, as defined in the approved **Wastewater and Processed Kimberlite Management Plan**, rejected from the process plant after the recoverable diamonds have been extracted.

**"Freeboard"** means the vertical distance between the water line and the effective water containment crest on the upstream slope of a dam or dyke.

**"Frozen Core"** means a permafrost core comprised of frozen ice-saturated aggregate material which functions as an impervious barrier to water, Waste, or Processed Kimberlite.

**"Groundwater"** means all water below the ground surface.

**"Inspector"** means an Inspector designated by the Minister under subsection 65(1) of the Act.

**"King Pond Settling Facility (KPSF)"** comprises the basin and associated containment structures as generally described in the application for renewal of Water Licence N7L2-1616 filed on December 12, 2003 and given file number MV2003L2-0013 [see Figure 1.6c in the Mining Industry Questionnaire] or as modified in subsequent plans and/or drawings as approved by the Board.

**"Land Farm"** comprises the lined, engineered facility designed to contain and treat, using bioremediation, hydrocarbon contaminated sediments and soil with an average diameter less than 4 cm.

**"Licensee"** means the holder of this Licence.

**"Long Lake Containment Facility"** comprises the basin and containment structures that are designed to contain Processed Kimberlite and other Waste as described in the application for renewal of Water Licence N7L2-1616 filed on December 12, 2003 and given file number MV2003L2-0013 [as shown in Figure 5.2a in the Mining Industry Questionnaire] or as modified in subsequent plans and/or drawings as approved by the Board.



**“Lynx Development”** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Lynx pit.

**“Management Plans”** means the specific plans required by the Board under this Water Licence.

**“Maximum Average Concentration”** means the running average of any four (4) consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program".

**“Mine Plan”** means the life of mine plan as updated by the Licensee from time to time for sequencing of the development of the Project.

**“Minewater”** includes runoff from facilities associated with the Project and all water or Waste pumped or flowing out of any open pit or underground mine.

**“Minister”** means a duly appointed member of the Executive Council who is responsible for the Act or the department responsible for administering that Act.

**“Misery Development”** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Misery pit.

**“Misery Pit Minewater Management Facility”** means the mined-out Misery pit which will be used for storage of Minewater related to the Misery Underground Development , as described in the approved **Wastewater and Processed Kimberlite Management Plan**.

**“Misery Underground Development”** means all of the activities and facilities associated with the Construction, operation and Reclamation of the underground mine at Misery Pit.

**“Modification”** in respect of a structure, means a change, other than an expansion, that does not alter the purpose or function of a structure.

**“Phase I Tailings Containment Area”** comprises the containment basin and the Engineered Structures designed to contain Processed Kimberlite as described in Drawing Number 11522-1, Sheets 1 and 2, titled "BHP Minerals Canada Ltd. – NWT Diamonds - Phase I Tailings Dam, As Built Plan and As Built Cross Sections" scale 1:100, date stamped on July 28, 1994.

**“Pigeon Development”** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Pigeon pit.

**“Point Lake Development”** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Point Lake pit as described in Board’s Preliminary Screening determination.<sup>1</sup>

**“Processed Kimberlite”** means material rejected from the process plant after the recoverable diamonds have been extracted.

**“Processed Kimberlite Containment Area”** means those locations at which the Licensee may deposit Processed Kimberlite, as approved by the Board.

---

<sup>1</sup> See WLWB Online Registry (wlwb.ca) for [Ekati – Point Lake Project – Preliminary Screening Determination and Reasons for Decision – Aug 24 21](#)





**"Professional Engineer"** means a person who is registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists in accordance with the *Engineering and Geoscience Professions Act*. S.N.W.T. 2006, V.16, or subsequent editions, as a Professional Engineer, and whose principal field of specialization is appropriate to address the components of the Project at hand.

**"Project"** means the EKATI Diamond Mine operation in its entirety and associated activities as described in Part A, Condition 1 (a) of this licence.

**"Racetrack"** means the designated area used for the disposal of the decanted water or Waste from the Land Farm and the Contaminated Snow Containment Facility, or other sources of Minewater, as described in the approved **Waste Rock and Ore Storage Management Plan**.

**"Receiving Environment"** means, for the purpose of this Licence, the natural aquatic environment that receives any deposit or Discharge of Waste, including Seepage or Minewater, from the Project.

**"Reclamation"** means activities which facilitate the return of affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and the surrounding environment.

**"Regulations"** are those Regulations promulgated pursuant to section 63 of the Act.

**"Response Framework"** is a systematic approach to responding when the results of a monitoring program indicate that an Action Level has been reached.

**"Response Plan"** is a part of the Response Framework that describes the specific actions to be taken by the Licensee in response to reaching or exceeding an Action Level.

**"Sable Development"** means all of the activities and facilities associated with the Construction, operation, and Reclamation of the Sable pit.

**"Sable, Pigeon, and Beartooth Development"** means all of the activities and facilities associated with the Construction, operation and Reclamation of the Sable, Pigeon, and Beartooth pits.

**"Shake Flask Extraction and Net Acid Generation Report"** means the report provided on October 19<sup>th</sup>, 2021 during the Proceeding for Amendment #1.

**"Seepage"** includes water or Waste that drains through or escapes from any structure designed to contain, withhold, divert or retain water or Waste, including Waste Rock Storage Areas.

**"Sewage"** means all toilet Waste and greywater.

**"Sewage Treatment Facilities"** means the facilities that are designed to contain and treat Sewage.

**"Significance Threshold"** means a level of environmental change in any monitored parameter which, if reached, would result in a significant adverse effect.

**"Sump"** is a storage facility constructed to temporarily collect, hold, or transfer water and/or Waste within the Project.



**“Traditional Knowledge Management Framework”** is a document that describes protocols for collecting, storing, managing, and using Traditional Knowledge and will apply to the lifetime of the Point Lake Development (Construction, operations and Reclamation phases), as required by Land Use Permit W2021D0005.

**“Two Rock Sedimentation Pond”** means the containment structure that is designed to contain the Minewater from the Sable pit during operation, drainage from the Waste Rock Storage Area, and the turbid water and solids fraction of the lake sediments after lake Dewatering and stripping as described in the document titled "Preliminary Design of Water Control Structures for Sable, Pigeon and Beartooth Pit Developments" prepared by EBA Engineering Consultants Ltd., April, 2000.

**“Unauthorized Discharge”** is a release or Discharge of any water or Waste not authorized under this Licence.

**“Waste”** means any substance defined as Waste by section 1 of the Act.

**“Waste Rock”** means all unprocessed rock materials that are produced as a result of mining operations.

**“Waste Rock Storage Area”** means the facilities where Waste Rock, Coarse Processed Kimberlite, and other materials as approved by the Board are deposited in accordance with this Licence.

**“Water Supply Facilities - Grizzly Lake”** comprises the area and associated intake infrastructure at Grizzly Lake as identified in Drawing Number D-U150-51-9-0009 titled, "H.A. Simons Ltd., NWT Diamonds Project, Water System, Fresh Water Supply - Plans and Sections", dated July 29, 1996.

**“Water Supply Facilities - Little Lake”** comprises the area and associated intake infrastructure at Little Lake.

**“Water Supply Facilities - Thinner Lake Misery Camp”** comprises the area and associated intake infrastructure at Thinner Lake Misery Camp as identified in Drawing Number 230320-73-210-07, revision A, scale 1:500, titled "Potable Water Pumphouse Layout", dated October 26, 1995.

**“Zone S”** means the area within the Waste Rock Storage Areas designated for containment of Sewage solids and rock/sediments with an average diameter greater than 4 cm that have been contaminated by hydrocarbons.

**“Zone of Influence”** means an area within which there are positive or negative effects as a result of the Project.



## Part B: General Conditions

1. The Licensee shall ensure a copy of this Licence is maintained on site at all times.
2. The water use fee shall be paid annually by July 30<sup>th</sup> each year in advance of any water use, per subsection 8(1) of the Waters Regulations. In a cover letter accompanying this payment, the Licensee shall indicate which water sources, as outlined in Part D, Conditions 2 and 3, will be used, in the upcoming year.
3. The Licensee shall operate in accordance with any plans approved pursuant to the conditions of this Licence and with any revisions to the plans as may be made from time to time pursuant to the conditions of this Licence and as approved by the Board. If any plan is not approved by the Board, the Licensee shall revise the plan according to the Board's direction and re-submit it to the Board for approval.
4. The Licensee shall annually review the plans referred to in Part B, Condition 11; Part H, Conditions 1, 2, and 3; and Part I, Conditions 1 and 4; and shall revise the plans as necessary to reflect changes in operations or technology, or as requested by the Board. All revised plans shall be submitted to the Board for approval.
5. The Licensee shall comply with the Schedules, which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.
6. The Licensee shall comply with the Surveillance Network Program which is annexed to and forms part of this Licence, and any updates to the Surveillance Network Program as may be made by the Board, pursuant to the conditions of this Licence.
7. The Schedules, the Surveillance Network Program, and any compliance dates specified in this Licence may be updated at the discretion of the Board.
8. Meters, devices, or other such methods used for measuring the volumes of water used and Waste Discharged shall be installed, operated, and maintained by the Licensee to the satisfaction of an Inspector.
9. The Licensee shall post and maintain signs necessary to identify the stations of the Surveillance Network Program to the satisfaction of an Inspector.
10. The Licensee shall file an **Annual Report** with the Board no later than April 30<sup>th</sup> of the year following the calendar year reported. The report shall contain the information set out in Schedule 1, Condition 1.
11. The Licensee shall comply with the Engagement Plan, once approved.
12. Any revised Plan submitted to the Board under this Licence shall include a list of notable revisions to the Plan.
13. The Plans referred to in: Part E, Conditions 1 and 2; Part F, Condition 2; Part H, Conditions 2 and 3; Part I, Conditions 1 and 4; and Part K, Condition 7, shall be presented in a format consistent with the Mackenzie Valley Land and Water Boards' *Standard Outline for Management Plans*, unless otherwise approved by the Board.
14. Any reference to an Act, Regulation, Plan, or Guideline in this Licence is a reference to the most current version unless otherwise explicitly stated.



15. In conducting its activities under this Licence, the Licensee shall make best efforts to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.
16. In each submission required by the Licence or a directive from the Board, the Licensee is to identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission and provide justification for any recommendation not adopted.
17. The Licensee shall operate in accordance with the **Traditional Knowledge Management Framework** that describes protocols for collecting, storing, managing, and using Traditional Knowledge..
18. The Licensee shall notify the Inspector and the Board immediately of any non-compliance with the conditions of this Licence or any direction provided by the Board.



### Part C: Conditions Applying to Security Deposits

1. The Licensee shall post and maintain security deposits in accordance with Schedule 2.
2. Upon request of the Board, the Licensee shall submit an updated mine Reclamation liability estimate utilizing the current version of RECLAIM or another method acceptable to the Board.
3. The amount of the security deposit required by Part C, Condition 1 and Schedule 2 may be adjusted by the Board based on estimates of the current mine Reclamation liability referred to in Part C, Condition 2 of this Licence or based on such other information as may be available to the Board.
4. If the amount of the security deposit is adjusted by the Board as described under Part C, Condition 3, the Licensee shall post the revised amount with the Minister within 90 days of the Board giving notice of the revised amount.



**Part D: Conditions Applying to Water Use**

1. The Licensee may only obtain water for domestic purposes, processing, road watering, and associated uses from Long Lake Containment Facility, Koala South and East Sumps, Desperation Pond, King Pond Settling Facility, Two Rock Lake, Two Rock Sedimentation Pond, Falcon Lake, Lac de Gras, Grizzly Lake, Little Lake, and Thinner Lake (Misery Camp), unless otherwise approved by the Board. Water will be withdrawn using the Water Supply Facilities, unless otherwise authorized in writing by an Inspector.
2. The annual quantity of fresh water withdrawn for any purpose excluding those one-time uses described in Part D, Condition 3, shall not exceed the limits set out below (in cubic metres):

<b>Water Source</b>	<b>Timing of Use (where applicable)</b>	<b>Maximum Quantity of Water Use (m<sup>3</sup>)</b>
<b>Two Rock Lake</b>		466,000
<b>Grizzly Lake</b>		200,000
<b>Little Lake</b>		400,000
<b>Thinner Lake</b>		15,000
<b>Falcon Lake</b>		100,000
<b>Lac de Gras</b>		100,000

3. Fresh water withdrawn for a one-time water use, shall not exceed the limits set out below:

<b>Water Source</b>	<b>Timing of Use (where applicable)</b>	<b>Maximum Quantity of Water Use (m<sup>3</sup>)</b>
<b>Point Lake</b>	Dewatering	7,800,000
<b>Sable Lake</b>	Dewatering	560,400
<b>Pigeon Pond</b>	Dewatering	18,500

A one-time water use fee is to be paid prior to the commencement of each one-time water use.

4. The Licensee may obtain water for road watering and associated uses from the Long Lake Containment Facility only if the water meets the effluent quality criteria established in Part H, Condition 15(a) of this Water Licence, or as otherwise approved by the Board.
5. The Licensee may obtain water for road watering and associated uses from the King Pond Settling Facility and Desperation Pond only if the water meets the effluent quality criteria established in Part H, Condition 15(b) or Part H, Condition 15(c) (respectively) of this Water Licence, or as otherwise approved by the Board.
6. The Licensee may obtain water for road watering and associated uses from Two Rock Sedimentation Pond only if the water meets the effluent quality criteria established in Part H, Condition 15(d) of this Water Licence, or as otherwise approved by the Board.



7. The Drawdown of Little Lake, Grizzly Lake, Thinner Lake, and Falcon Lake shall not exceed one metre from the following water levels:
  - a) Little Lake: 449.15 m;
  - b) Thinner Lake: 451.74 m;
  - c) Grizzly Lake: 468.05 m; and
  - d) Falcon Lake: 469.5 m;

Prior to withdrawing any water from these lakes, the Licensee shall clearly mark these elevations at each lake.

8. The Licensee shall construct and maintain the water intake(s) with a fish screen designed to prevent impingement and/or entrainment of fish. The fish screen shall be in accordance with the detailed guidance referred to in Schedule 3, Condition 1.
9. In one ice-covered season, total water withdrawal from a single waterbody shall not exceed 10% of the available water volume calculated using the appropriate maximum expected ice thickness in accordance with the detailed guidance referred to in Schedule 3, Condition 2.



## PART E: Conditions Applying to Dewatering and Drawdown

1. Prior to the commencement of Dewatering or Drawdown, excluding Grizzly Lake, Little Lake, Thinner Lake, Falcon Lake, and Lynx Lake, the Licensee shall submit a **Dewatering Plan** or **Drawdown Plan** for each lake in accordance with Schedule 4, Condition 1 to the Board for approval.
2. At least 90 days prior to the commencement of Dewatering of Lynx Lake, the Licensee shall submit a **Lynx Lake Dewatering Plan** in accordance with Schedule 4, Condition 2 to the Board for approval. Dewatering of Lynx Lake shall not commence until the Plan is approved by the Board.
3. All Discharge outflow structures shall be located so as to minimize erosion.
4. During the Dewatering or Drawdown of any lake, daily erosion inspections of the Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee shall notify an Inspector and take the necessary corrective action to mitigate the erosion problem to the satisfaction of an Inspector.
5. The Licensee shall ensure that Drawdown rates from pumps do not exceed 2.55 m<sup>3</sup>/sec during May to July, inclusive, and 0.52 m<sup>3</sup>/sec during the remaining months.
6. Within 60 days of the completion of Dewatering or Drawdown of any water source, excluding Grizzly Lake, Little Lake, and Thinner Lake, the Licensee shall submit a **Summary Report** in accordance with Schedule 4, Condition 3 to the Board and an Inspector.





## Part F: Conditions Applying to Construction

1. At least ten days prior to Construction of any Engineered Structures related to water use or Waste disposal for the Project, excluding Sumps, that are included in an approved Management Plan, the Licensee shall submit the following items to the Board: design drawings stamped by a Professional Engineer, a Construction schedule, and any information required under Part F, Condition 2 of this Licence that was not included in an approved Management Plan.
2. At least 90 days prior to the start of Construction, of any facilities related to water use or Waste disposal for the Project, excluding Sumps, that are not part of a Board-approved management plan, the Licensee shall submit a **Construction Plan** in accordance with Schedule 5, Condition 1 to the Board for approval.
3. At least 90 days prior to the commencement of Construction of any Waste Rock Storage Area, the Licensee shall submit a final **Waste Rock Storage Area Design Plan** to the Board for approval. This Report shall be developed in accordance with Schedule 5, Condition 2 and the **Waste Rock and Ore Storage Management Plan** as described in Part H, Condition 3. Construction of the Waste Rock Storage Area shall not commence until the final **Waste Rock Storage Area Design Plan** is approved by the Board.
4. Prior to the start of Construction along the centerline of all containment structures and diversion channels related to the Sable, Pigeon, Beartooth, and Lynx Development, the Licensee shall undertake a comprehensive delineation program to identify soil, rock, and ground ice conditions and shall submit the results of the program to the Board.
5. A minimum of ten days prior to commencement of Construction at each of the Point Lake, Sable, Pigeon, Beartooth, Lynx, and Misery Underground Developments, the Licensee shall provide written notification to an Inspector.
6. The Licensee shall ensure that Construction of Engineered Structures is supervised by a Professional Engineer.
7. The Licensee shall ensure that each Waste Rock Storage Area is constructed in accordance with the approved final **Waste Rock Storage Design Report**.
8. Within 90 days of completion of the Construction of Engineered Structures related to water use and Waste disposal for the Project, excluding the Construction of Sumps, the Licensee shall submit an **As-built Report** to the Board. The Report shall be prepared by a Professional Engineer and shall include: as-built drawings, documentation of field decisions that deviate from original plans, and any data used to support these decisions.



## PART G: Conditions Applying to Modifications

1. The Licensee may, without written approval from the Board, carry out Modifications to Engineered Structures related to water use or Waste disposal provided the following requirements are met:
  - a) The Licensee has notified the Board and Inspector in writing of such proposed Modifications at least 45 days prior to beginning the Modifications;
  - b) The Modifications do not place the Licensee in contravention of either the Licence or the Act;
  - c) The Board has not, during the 45 days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than 45 days;
  - d) The Board has not rejected the proposed Modifications; and
  - e) An Inspector has authorized the proposed Modifications and provided a letter of notification to the Board.
2. Modifications for which all of the conditions referred to in Part G, Condition 1, have not been met, may be carried out only with written approval from the Board.
3. Within 90 days of the completion of Modifications referred to in Part G, Conditions 1 and 2 of this Licence, the Licensee shall provide as-built drawings stamped by a Professional Engineer to the Board.
4. Prior to carrying out Modifications to the Waste Rock Storage Areas, the Licensee shall submit an updated **Design Report** to the Board for approval.



## Part H: Conditions Applying to Waste Disposal

1. Within 60 days following the issuance date of Amendment #1, the Licensee shall submit a revised **Waste Management Plan** in accordance with the Mackenzie Valley Land and Water Board's *Guidelines for the Development of a Waste Management Plan*, March 2011, or subsequent editions, and Board direction, to the Board for approval. The Plan shall describe how all Waste streams associated with the Project are managed, including references to other plans as necessary.
2. The Licensee shall submit a revised **Wastewater and Processed Kimberlite Management Plan**, in accordance with the detailed guidance set out in Schedule 6, Condition 1, to the Board for approval, at the following times:
  - a) A minimum of 60 days prior to the Construction of each of the Sable, Pigeon, Lynx, and Point Lake pits;
  - b) A minimum of 90 days prior to the deposition of Processed Kimberlite into Panda and Koala pits to incorporate results of the freshwater cap optimization study required by Schedule 9, Condition 1(a);
  - c) and
  - d) As directed by the Board.
3. The Licensee shall submit a revised **Waste Rock and Ore Storage Management Plan** in accordance with the detailed guidance referred to in Schedule 6, Condition 2, to the Board for approval, at the following times:
  - a) A minimum of 90 days prior to the Construction of the Sable, Pigeon, Lynx, and Point Lake pits; and
  - b) As directed by the Board.
4. During the term of this Licence, the Licensee shall conduct a Seepage survey of all constructed ore stockpiles and Waste Rock Storage Areas in accordance with Schedule 6, Condition 3.
5. Seepage water is to be collected and managed in accordance with the approved **Waste Rock and Ore Storage Management Plan** referred to in Part H, Condition 3.
6. All Dams, dykes, and other structures designed and constructed to contain, withhold, divert, or retain water or Wastes must comply with the *Dam Safety Guidelines*.
7. Two Rock Sedimentation Pond
  - a) The Licensee shall construct, operate, and maintain Two Rock Sedimentation Pond to engineering standards such that:
    - i. a minimum Freeboard limit of 1.0 metre, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
    - ii. Seepage from the Two Rock Sedimentation Pond outlet dam is minimized at all times;
    - iii. any Seepage from the Two Rock Sedimentation Pond that occurs and does not meet effluent quality requirements, as specified in Part H, Condition 15(d), shall be collected and immediately returned to the Two Rock Sedimentation Pond;



- iv. any constructed facilities that are eroded are repaired immediately; and
  - v. when not used for Reclamation material, the solids fraction of the Sable Lake sediments and the solids fraction of the Wastes deposited, shall be permanently contained within the Two Rock Sedimentation Pond.
- b) Inspections of Two Rock Sedimentation Pond, pipeline(s), and catchment basin(s) shall be carried out weekly when operating or more frequently as directed by the Inspector and records of these inspections shall be kept for review.
- c) An inspection of Two Rock Sedimentation Pond shall be carried out annually by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to the Professional Engineer's recommendations.

#### 8. Long Lake Containment Facility

- a) The Licensee shall construct, operate, and maintain the Long Lake Containment Facility to design specifications such that:
- i. a minimum Freeboard limit of 5.5 metres (including 1.5 metres of Frozen Core and 4.0 metres of embankment material) for the perimeter dams shall be maintained at all times;
  - ii. a Freeboard limit of 1.0 metre for the intermediate dykes, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
  - iii. Seepage from the Long Lake Containment facility is minimized at all times;
  - iv. any Seepage from the Long Lake Containment Facility that occurs and does not meet effluent quality requirements as specified in Part H, Condition 15(a), shall be collected and immediately returned to the Long Lake Containment Facility;
  - v. any constructed facilities that are eroded are repaired immediately; and
  - vi. the solids fraction of all Processed Kimberlite deposited in the Long Lake Containment Facility shall be permanently contained.
- b) Weekly inspections of the Long Lake Containment Facility shall be carried out in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and
- c) An inspection of the Long Lake Containment Facility shall be carried out annually in July by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer.

#### 9. Phase 1 Tailings Containment Area

- c) The Licensee shall construct, operate, and maintain the Phase 1 Tailings Containment Area to design specifications such that:



- i. a minimum Freeboard limit of 1.0 metre, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
  - ii. Seepage from the Phase 1 Tailings Containment Area is minimized at all times;
  - iii. any Seepage from the Phase 1 Tailings Containment Area that occurs and does not meet effluent quality requirements as specified in Part H, Condition 15(a) shall be collected and immediately returned to the Phase 1 Tailings Containment Area; and
  - iv. any constructed facilities that are eroded are repaired immediately;
- b) Inspections of the Phase 1 Tailings Containment Area shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and
- c) An inspection of the Phase 1 Tailings Containment Area shall be carried out annually in July by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer.

#### 10. Collection and Settling Ponds

- a) The Licensee shall construct, operate, and maintain the Collection and Settling Ponds to design specifications such that:
- i. a minimum Freeboard limit of 1.0 metre, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
  - ii. Seepage from the Collection and Settling Ponds is minimized at all times;
  - iii. any Seepage from the Collection and Settling Ponds that occurs and does not meet effluent quality requirements, as specified in Part H, Condition 15(b) for those facilities associated with the Misery Development, Condition 15(d) for those facilities associated with the Sable Development, , and Condition 15(a) for those facilities associated with the remainder of the Project, shall be collected and immediately returned to the Collection and Settling Ponds, the Long Lake Containment Facility, the Two Rock Sedimentation Pond, the Misery Pit Minewater Management Facility, the process plant, or another location approved by the Board; and
  - iv. any constructed facilities that are eroded are repaired immediately.
- b) Inspections of the Collection and Settling Ponds shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and
- c) An inspection of the Collection and Settling Ponds shall be carried out annually in July by a Professional Engineer. The Professional Engineer's full **Geotechnical Inspection Report** shall be submitted to the Board within 90 days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer.



11. The Licensee shall provide water sampling results to an Inspector no later than five days prior to any planned Discharge of water or Waste to the Receiving Environment. Discharge shall not commence until authorized in writing by an Inspector.
12. Following completion of initial Dewatering, as described in the approved **Lynx Lake Dewatering Plan** required under Part E, Condition 2, all water from the Lynx Development shall be directed to the King Pond Settling Facility, unless otherwise approved by the Board.
13. All water from the Misery Underground Development shall be directed to the King Pond Settling Facility and/or Lynx pit, unless otherwise approved by the Board.
14. Following completion of initial Dewatering, as described in the approved **Point Lake Dewatering Plan** required under Part E, Condition 1, all minewater from the Point Lake Development shall be directed to the King Pond Settling Facility and/or Lynx pit, unless otherwise approved by the Board.
15. Effluent Quality Criteria (EQC)
  - a) All water or Waste from the Project that enters the Receiving Environment, including all Discharges at Surveillance Network Program Station 1616-30, but excluding those Discharges listed in Part H, Conditions 15(b), 15(c), 15(d) and 17, shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Dissolved Aluminum	0.1	0.2
Total Antimony	0.01	0.02
Total Arsenic	0.004	0.008
Chloride	$116.6(\ln[\text{Hardness}]) - 204.1$	$2(116.6(\ln[\text{Hardness}]) - 204.1)$
Nitrate – N	$e^{(0.9518(\ln[\text{Hardness}]) - 2.032)}$	$2(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$
Nitrite – N	0.06	0.12
Potassium	53	103
Total Selenium	0.001	0.002
Total Strontium	3.0	6.0
Sulphate	$e^{(0.9116(\ln[\text{Hardness}]) + 1.712)}$	$2(e^{(0.9116(\ln[\text{Hardness}]) + 1.712)})$
Total Suspended Solids	15	25
Total Petroleum Hydrocarbons	3.0	5.0

Hardness to be used in the equations shown above is the hardness as analyzed from the sample collected at the same time at Surveillance Network Program Station 1616-30, with the following limits:

- i. for nitrate and chloride: up to a maximum hardness of 160 mg/L (if hardness exceeds 160 mg/L, 160 mg/L will be used in the equations); and
- ii. for sulphate: up to a maximum hardness of 115 mg/L (if hardness exceeds 115 mg/L, 115 mg/L will be used in the equations).



A quick-reference table of EQC for chloride, nitrate, and sulphate is included in Schedule 6, Condition 5.

- b) All water or Waste from the Point Lake, Lynx, and Misery Developments that enters the Receiving Environment, including all Discharges at Surveillance Network Program Station 1616-43, but excluding those listed in Part H, Conditions 15 (c) and 17 shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Aluminum	0.17	0.34
Ammonia-N	1.7	3.4
Total Arsenic	0.0085	0.017
Cadmium	$1.7 \times [(10^{[0.83 \log(\text{Cujo Lake Hardness}) - 2.46]}) / 1000]$	$3.4 \times [(10^{[0.83 \log(\text{Cujo Lake Hardness}) - 2.46]}) / 1000]$
Chloride	$1.7 \times [116.6 \times \ln(\text{Cujo Lake Hardness}) - 204.1]$	Minimum of: $3.4 \times [116.6 \times \ln(\text{Cujo Lake Hardness}) - 204.1]$ OR $10^{[0.297 \log(\text{KPSF Hardness}) + 2.232]}$
Chromium	0.0017	0.0034
Total Copper	0.0034	0.007
Iron	0.51	1
Nitrate – N	$1.7(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$	$3.4(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$
Phosphate	0.017	0.034
Potassium	41	82
Sulphate	$1.7(e^{(0.9116(\ln[\text{Hardness}]) + 1.712)})$	$e^{(0.4163(\ln[\text{Hardness}]) + 4.878)}$
Total Suspended Solids	15	25
Uranium	0.026	0.033
Total Petroleum Hydrocarbons	3.0	5.0

Hardness to be used in the equations shown above is the hardness as analyzed from the most recent sample collected during open water at Surveillance Network Program Station 1616-48 (Cujo Lake), with the following limits:

- i. for Maximum Average Concentration for chloride: up to a maximum hardness of 160 mg/L (if hardness exceeds 160 mg/L, 160 mg/L will be used in the equation);
- ii. for the maximum concentration of any grab sample for chloride: up to a maximum hardness of 300 mg/L in KPSF (if hardness exceeds 300 mg/L, 300 mg/L will be used in the second equation for the maximum concentration of any grab sample); and
- iii. for cadmium: up to a maximum hardness of 280 mg/L (if hardness exceeds 280 mg/L, 280 mg/L will be used in the equations).



- iv. for nitrate: up to a maximum hardness of 160 mg/L (if hardness exceeds 160 mg/L, 160 mg/L will be used in the equations); and
- v. for sulphate: up to a maximum hardness of 65 mg/L (if hardness exceeds 65 mg/L, 65 mg/L will be used in the equations).

A quick-reference table of EQC for nitrate and sulphate is included in Schedule 6, Condition 5.

- c) All Discharges from Desperation Pond at Surveillance Network Program Station 1616-47 shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Ammonia-N	1.34	2.68
Total Copper	0.004	0.008
Nitrate – N	$2.27(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$	$4.54(e^{(0.9518(\ln[\text{Hardness}]) - 2.032)})$
Potassium	41	82
Sulphate	$2.27(e^{(0.9116(\ln[\text{Hardness}]) + 1.712)})$	$e^{(0.4163(\ln[\text{Hardness}]) + 4.878)}$
Total Suspended Solids	15	25
Total Petroleum Hydrocarbons	3.0	5.0

Hardness to be used in the equations shown above is the hardness as analyzed from the most recent sample collected during open water at Surveillance Network Program Station 1616-47, with the following limits:

- i. for nitrate: up to a maximum hardness of 160 mg/L (if hardness exceeds 160 mg/L, 160 mg/L will be used in the equations); and
- ii. for sulphate: up to a maximum hardness of 65 mg/L (if hardness exceeds 65 mg/L, 65 mg/L will be used in the equations).

A quick-reference table of EQC for nitrate and sulphate is included in Schedule 6, Condition 5.

- d) All water or Waste from the Sable Development that enters the Receiving Environment, including Discharges at Surveillance Network Program Station 0008-Sa3, but excluding those Discharges listed in Part H, Condition 17 shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Ammonia-N	4.0	8.0
Total Aluminum	1.0	2.0
Total Arsenic	0.050	0.10
Total Copper	0.02	0.04





Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Cadmium	0.0015	0.003
Total Chromium	0.02	0.04
Total Lead	0.01	0.02
Total Zinc	0.03	0.06
Total Nickel	0.05	0.1
Nitrite-N	1.0	2.0
Nitrate-N	20.0	40.0
Total Suspended Solids	15.0	25.0
Total Petroleum Hydrocarbons	3.0	5.0
Turbidity	10 NTU	15 NTU
Total Phosphorus	0.2	0.4

- e) Any water or Waste from the Project that enters the Receiving Environment shall have a pH between 6.0 and 9.0, except surface runoff which shall have a pH between 5.0 and 9.0; and
  - f) All water or Waste from the Project that enters the Receiving Environment, including Discharges at Surveillance Network Program Station 1616-30, 1616-43, and 0008-Sa3 shall be non-acutely toxic as determined by the acute toxicity tests described in Part A in the attached Surveillance Network Program.
16. The Licensee shall direct all piped and pumped Sewage to the Sewage Treatment Facilities, or as otherwise approved by the Board.
17. All surface runoff during the Construction or Modification of any facilities designed to withhold, divert, or retain such runoff up to the end of Construction, as per the **Construction Plan**, shall prior to Discharge meet the criteria mentioned in Part H, Condition 15(a), (b), (c), (d), or (e) except for the following criterion:

Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample
total suspended solids	50 mg/L	100mg/L

18. The Licensee shall notify the Inspector on any day when weather conditions do not permit the collection of a TSS sample.
19. Erosion Mitigation:
- a) erosion prevention structures that are satisfactory to an Inspector shall be used at all points where water or Waste is Discharged;
  - b) daily erosion inspections of Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee



shall notify an Inspector and take necessary corrective action to mitigate the erosion problem to the satisfaction of an Inspector.

20. The annual volumes of Discharge from Two Rock Sedimentation Pond shall not exceed 740,600 cubic metres per year during the operations phase.
21. At least one year prior to the commencement of Discharge from Two Rock Sedimentation Pond, the Licensee shall submit a **Two Rock Outfall Report** detailing the final proposed design of the outfall from Two Rock Sedimentation Pond into Horseshoe Lake to the Board for approval. This report shall be in accordance with Schedule 6, Condition 4.
22. Within eight months of the beginning of Discharge from Two Rock Sedimentation Pond, the Licensee shall submit a **Two Rock Plume Delineation Report** to the Board. This Report will include the results of a plume delineation study designed to describe dispersion of effluent into Horseshoe Lake from Two Rock Sedimentation Pond. This study should, at a minimum, be performed under worst-case conditions with respect to mixing within Horseshoe Lake and will be used to verify the SNP location proposed in Schedule 6, Condition 4(d). The location of SNP Station 0008-Sa9 may be moved as a result of this study.
23. At least 90 days prior to the deposition of Processed Kimberlite into the Panda and Koala pits, the Licensee shall submit a **Panda and Koala Deposition Study** to the Board for approval. This Study is to investigate how Fine Processed Kimberlite behaves once deposited into mined-out pits and the quality of the resulting supernatant water, and include an updated Panda and Koala Pits predictive water quality model.
24. Potassium Toxicity Study
  - a) Within 90 days of the issuance date of Amendment #5 (to W2012L2-0001), the Licensee shall submit the **Potassium Toxicity Study Design** to the Board for approval. This study is to evaluate the toxicity responses of sensitive species using site water spiked with potassium concentrations at minimum 64 mg/L, 80 mg/L, and 100 mg/L. The Design must propose timelines for the submission of the Potassium Toxicity Study Report referred to in Part H, Condition 24(b).
  - b) The **Potassium Toxicity Study Report** shall include a summary of the results of the Study conducted in accordance with the approved **Potassium Toxicity Study Design** referred to in Part H, Condition 24(a), and identify any implications to potassium management at the Ekati Diamond Mine. The Report shall be submitted to the Board for approval.
25. The Licensee shall ensure that Discharge from the King Pond Settling Facility does not exceed 470,915 cubic metres (m<sup>3</sup>) annually.
26. At least 90 days prior to the commencement of Construction of the Point Lake Waste Rock Storage Area, the Licensee shall submit a Point Lake WRSA Seepage Prediction Report to the Board for approval. The report shall contain the information set out in Schedule 6, Condition 6.
27. Prior to stopping any Humidity Cell Tests for the Point Lake Project, the Licensee shall submit to the Board for approval, a report with rationale for stopping the tests. The Licensee shall not stop the tests until it receives approval from the Board.
28. Once the Point Lake Waste Rock Storage Area seepage has started to be added to the King Pond Settling Facility, the Licensee shall provide a report on Effluent Quality Criteria for the King Pond Settling Facility to



the Board for approval. The Licensee must demonstrate Effluent Quality Criteria for the King Pond Settling Facility are sufficiently protective of the environment.

29. The Licensee shall not Discharge from the King Pond Settling Facility after Point Lake Waste Rock Storage Area seepage has been added to the facility, until approved by the Board.

DRAFT



## PART I: Conditions Applying to Contingency Planning

1. The Licensee shall review and update the Board-approved **Spill Contingency Plan** as necessary to reflect changes in operation and technology, as well as 60 days prior to the Construction of each of the Sable, Pigeon, Lynx, and Point Lake pits and 60 days following the issuance date of Amendment #1. Any proposed updates shall be in accordance with Indian and Northern Affairs Canada's *Guidelines for Spill Contingency Planning*, 2007, or subsequent editions, and shall be submitted to the Board for approval.
2. If, during the period of this Licence, an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
  - a) Implement the Spill Contingency Plan;
  - b) Report the incident immediately via the 24 Hour Spill Reporting Line (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593 or subsequent editions; and
  - c) Submit a detailed report on each occurrence to an Inspector not later than 30 days after initially reporting the event.
3. All Unauthorized Discharges of water or Waste shall be reclaimed to the satisfaction of an Inspector.
4. The Licensee shall operate in accordance with the **Hydrocarbon-Contaminated Materials Management Plan**, as approved by the Board, which shall include the information set out in Schedule 7, Condition 1.



## **PART J: Conditions Applying to Aquatic Effects Monitoring**

1. The Licensee shall implement an Aquatic Effects Monitoring Program (AEMP) that meets the following objectives:
  - a) To determine the short- and long-term effects of the Project on the Receiving Environment;
  - b) To test the predictions made in the Environmental Assessment (EA) or in other submissions to the Board regarding the impacts of the Project on the Receiving Environment;
  - c) To assess the efficacy of mitigation measures that are used to minimize the effects of the Project on the Receiving Environment; and
  - d) To identify the need for additional mitigation measures to reduce or eliminate Project-related effects.

Results of the AEMP will be used to prevent or avoid adverse environmental effects through a **Response Framework** and regular evaluation of the AEMP.

2. The Licensee shall operate in accordance with the approved **AEMP Design Plan**. The Licensee shall submit a revised **AEMP Design Plan**, that satisfies the objectives of Part J, Condition 1, and the requirements of Schedule 8, Condition 1, to the Board for approval, at the following times:
  - a) At least one year prior to commencement of Construction at each of the Pigeon and Sable pits;
  - b) At least six months prior to commencement of Dewatering of Lynx Lake; and
  - c) Within six months of the issuance date of Amendment #1 to W2020L2-0004.

The revised AEMP Design Plan shall include those sampling stations necessary to determine short- and long-term effects in the Receiving Environment as a result of the Pigeon, Sable, Lynx, or Point Lake Development.

3. The Licensee may at any time propose revisions to the **AEMP Design Plan** and shall review and revise the **AEMP Design Plan** as necessary to reflect directives from the Board. All revised plans shall be submitted to the Board for approval.
4. The Licensee shall review and revise, as necessary, the AEMP Design Plan every three years, or as directed by the Board. The Licensee shall submit a revised **AEMP Design Plan** that satisfies the objectives of Part J, Condition 1, and the requirements of Schedule 8, Condition 1, to the Board for approval.
5. Every three years, or as directed by the Board, the Licensee shall submit an **Aquatic Effects Re-Evaluation Report** that meets the following objectives and satisfies the requirements of Schedule 8, Condition 2 to the Board for approval:
  - a) To describe the Project-related effects on the Receiving Environment as measured from the Project inception and compared against Environmental Assessment (EA) predictions;
  - b) To update predictions of Project-related effects on the Receiving Environment based on monitoring results obtained since Project inception; and
  - c) To provide supporting evidence, if necessary, for proposed revisions to the **AEMP Design Plan**.



6. On or before March 31 each year, the Licensee shall submit an **AEMP Annual Report** to the Board for approval. This report shall include information relating to data collected in the preceding calendar year and which satisfies the requirements of Schedule 8, Condition 3.
7. Prior to February 15, 2014, the Licensee shall submit a **Response Framework**, which shall be integrated with the approved **AEMP Design Plan** and shall satisfy the requirements of Schedule 8, Condition 1(q) to the Board for approval.
8. The Licensee shall submit an update to the **Response Framework** referred to in Part J, Condition 7, in accordance with Schedule 8, Condition 1(q) to the Board for approval at the following times:
  - a) A minimum of one-year prior to Discharge from Two Rock Sedimentation Pond;  
and
  - b) A minimum of six months prior to Back-flooding of open pits from Lac du Sauvage.
9. If any Action Level defined in the approved **Response Framework** is exceeded, the Licensee shall:
  - a) Notify the Board within 60 days of when the exceedance is detected; and
  - b) Within 90 days of when the exceedance is detected, submit a **Response Plan** that satisfies the requirements of Schedule 8, Condition 4 to the Board for approval.
10. Prior to December 31, 2013, the Licensee shall submit a **Nitrogen Response Plan** to the Board for approval. The Plan shall have the objective of minimizing the amount of nitrogen that enters the Receiving Environment and shall satisfy the requirements set out in Schedule 8, Condition 5 to the Board for approval.
11. The Licensee shall implement **Response Plans** as and when approved by the Board.
12. The Licensee shall revise **Response Plans** as directed by the Board.
13. If not approved by the Board, the Plans and Framework referred to in Part J, Conditions 2, 7, 9(b) and 10 shall be revised and resubmitted in accordance with directives from the Board.
14. Prior to July 31, 2014, the Licensee shall conduct a special study to determine the toxicity of chloride on fingernail clams and shall submit the results of the study to the Board.
15. Prior to January 31, 2019, the Licensee is to submit the **Cujo Outflow Special Study Design** to the Board for approval. This Design is to propose details of the field surveys to be completed within streams B2, B3, and B4 to confirm outflows will be sufficient to ensure that access to spawning habitats is maintained for spring-spawning species.
16. The Licensee shall operate in accordance with the approved **Cujo Outflow Special Study Design**. The results of the Study conducted in accordance with the approved **Cujo Outflow Special Study Design** referred to in Part J, Condition 15 shall be submitted before January 31<sup>st</sup> of the year following open-water monitoring.



## PART K: Conditions Applying to Closure and Reclamation

1. The Licensee shall operate in accordance with the **Closure and Reclamation Plan** approved by the Board and shall endeavor to carry out progressive Reclamation of areas as soon as is reasonably practicable.
2. The Licensee shall revise the **Closure and Reclamation Plan** as directed by the Board and submit the revised Plan to the Board for approval. The Plan shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories* and Schedule 9, Condition 1 of this Licence, and any additional direction by the Board.
3. The Licensee may at any time propose revisions to the Plan referred to in Part K, Condition 1 for approval by the Board.
4. Prior to December 31 of each year, the Licensee shall submit an annual **Closure and Reclamation Plan Progress Report** which shall be in accordance the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, and any additional direction from the Board.
5. A minimum of 24 months prior to the end of commercial operations, the Licensee shall submit a **Final Closure and Reclamation Plan** to the Board for approval.
6. By October 31, 2022, the Licensee shall submit the **Interim Closure and Reclamation Plan** Version 3.1 in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, Schedule 9, Condition 1, and any additional direction by the Board.
7. At least six months prior to Back-flooding each of the open pits, the Licensee shall submit a **Back-flooding Plan** to the Board for approval. For the Misery pit, this shall include a description of adaptive management to protect fish habitat in the narrows between Lac du Sauvage and Lac de Gras.
8. At least six months prior to completion of open pit mining of the Point Lake Pit, the Licensee shall submit a Back-Flooding Plan for the Point Lake development, that includes the proposed timing, to the Board for approval.
9. No pit lakes shall be reconnected to the Receiving Environment without approval from the Board.
10. The Licensee shall begin Construction of the Point Lake WRSA(s) cover(s) within 12 months of completion of open pit mining at the Point Lake development, unless otherwise approved by the Board.
11. Within 90 days following the completion of open pit mining of the Point Lake Waste Rock Storage Area cover, the Licensee shall submit a final Waste Rock Cover Design Plan to the Board for approval. This Report shall be developed in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories and Schedule 9, Condition 2*. The Licensee shall not commence Construction of the Waste Rock Cover until the Design Plan is approved.



Signed the XXX day of XXXXXX on behalf of the Wek'èezhii Land and Water Board

Witness

Chair  
Wek'èezhii Land and Water Board





**Schedule 1**  
**Part B: General Conditions**

1. The **Annual Report** referred to in Part B, Condition 10 shall include, but not be limited to, the following information:

Measuring and Reporting on Water and Waste:

- a) The monthly and annual quantities in cubic metres of water obtained from any sources for the uses listed in Part D, Condition 2 and 3, where appropriate this is to differentiate between water diverted and water that has been otherwise used;
- b) The monthly elevations of water during the open-water season for Grizzly Lake, Little Lake, Thinner Lake, Upper Panda Lake, Cell E of the Long Lake Containment Facility, the King Pond Settling Facility, the Two Rock Sedimentation Pond, Misery pit during its use as the Misery Pit Minewater Facility, and Lynx pit during its use for Misery Underground Development;
- c) The monthly and total quantities in cubic metres of water Dewatered from Point, Sable, Pigeon, Two Rock Lakes, and Lac du Sauvage;
- d) The monthly and annual quantities in cubic metres of each Waste deposited into the Long Lake Containment Facility, King Pond Settling Facility, Phase 1 Tailings Containment Area, and Two Rock Sedimentation Pond, the Misery Pit Minewater Facility, and Lynx pit during its use for Misery Underground and Point Lake Developments;
- e) The monthly and annual quantities in cubic metres of any Discharges of water or Waste by location and nature of the Discharge;
- f) The monthly and annual quantities in cubic metres of Minewater pumped from each open pit and the underground mine and its deposit location;
- g) The monthly and annual quantities in cubic metres of treated Sewage effluent discharged from the Sewage Treatment Facilities;
- h) The monthly and annual quantities in cubic metres of Sewage solids removed from the Sewage Treatment Facilities;
- i) The monthly and annual quantities in cubic metres of recycled water, identifying both source and use;
- j) Tabular summaries of all data and information generated under the Surveillance Network Program and graphical summaries of parameters in the effluent quality criteria under Part H at the points of compliance (SNP stations 1616-30, 1616-43, 1616-47, 0008-Sa3) in an electronic format acceptable to the Board. The Licensee shall provide raw data in electronic form upon request by the Board;
- k)

Management Plans and Activities:



- l) A summary of Dewatering and Drawdown activities in accordance with Part E, Conditions 1-3;
- m) A summary of Construction activities and an updated Mine Plan;
- n) A summary of all work carried out over the last year under the approved Management Plans referred to in Part H, Conditions 1 through 3 of this Licence including:
  - i. the quantity of kimberlite processed through the process plant;
  - ii. the quantity of Waste Rock by type and Overburden from each open pit and underground mine deposited in each of the Waste Rock Storage Areas and Overburden Stockpiles and a description of Construction compared to the Board-approved design for each Waste Rock Storage Area;
  - iii. the quantity of Coarse Processed Kimberlite deposited in each deposition location;
  - iv. the quantity of Fine Processed Kimberlite deposited in each deposition location;
  - v. a summary of the results of Seepage surveys conducted in accordance with Part H, Condition 5 of this Licence; and
  - vi. updated results of ongoing Acid/Alkaline Rock Drainage and related geochemical test work;
- o) A summary of any Modifications carried out in accordance with Part G of this Licence and/or major maintenance work carried out on any water or Waste management facilities including, but not limited to, Water Supply Facilities, Collection and Settling Ponds, Long Lake Containment Facility, King Pond Settling Facility, Sewage Treatment Facilities, Two Rock Sedimentation Pond, Pigeon Diversion Channel, , and associated structures;
- p) A summary of the results of the Aquatic Effects Monitoring Program in accordance with Part J of this Licence;
- q) A progress report on any studies requested by the Board that relate to Waste management, water use, or mine site Reclamation and a brief description of any future studies planned by the Licensee;
- r) A summary of any revisions to the approved:
  - i. **Waste Management Plan, Wastewater and Processed Kimberlite Management Plan, and Waste Rock and Ore Storage Management Plan** referred to in Part H of this Licence; and
  - ii. **Spill Contingency Plan and Hydrocarbon-Contaminated Materials Management Plan** referred to in Part I of this Licence;
- s) A summary of the results of the monitoring carried out under the **Hydrocarbon-Contaminated Materials Management Plan** referred to in Part I, Condition 4 of this Licence;

Spills and Unauthorized Discharges:

- t) A list and description, including volumes, of all Unauthorized Discharges and summaries of follow-up action taken; and



- u) An outline of any spill training and communications exercises carried out;

Closure and Reclamation:

- v) A summary of the results of the **Annual Closure and Reclamation Plan Progress Report** referred to in Part K of this Licence; and

Other Reporting Requirements:

- w) Any other details on water use or Waste disposal requested by the Board by November 1<sup>st</sup> of the year being reported; and
- x) A description of how Traditional Knowledge, including but not limited to that received from the Traditional Knowledge Elders Group, influenced decision making.



**Schedule 2**  
**Part C: Conditions Applying to Security Deposits**

1. In accordance with subsection 35(1) of the Act and Part C of this Licence, the Licensee shall post and maintain:
  - a) a security deposit of CDN \$287,134,773\$; and
  - b) additional security deposits on the following schedule:
    - i. At least 60 days prior to completion of 60% Sable pit mining by volume, the Licensee shall post and maintain an additional CDN \$2,864,913.



### Schedule 3

#### Part D: Conditions Applying to Water Use

1. The Licensee shall adhere to the best practices outlined in both the Department of Fisheries and Oceans' *Freshwater Intake End-of-Pipe Fish Screen Guidelines*, 1995, or subsequent editions, and *Fish Screen Design Criteria for Flood and Water Truck Pumps*, 2011, or subsequent editions.
2. The Licensee shall adhere to the best practices outlined in the Department of Fisheries and Oceans' *Protocol for Winter Water-Withdrawal from Ice-Covered Waterbodies in the NWT and NU*.



## Schedule 4

### Part E: Conditions Applying to Dewatering and Drawdown

1. The **Dewatering Plan** or **Drawdown Plan** referred to in Part E, Condition 1 shall include, but not be limited to, the following information:
  - a) Volume of water produced by Dewatering or Drawdown from each source;
  - b) A schedule for Dewatering or Drawdown and maximum pump rates;
  - c) Pumping methods including locations of intake and outflow structures;
  - d) The design of any erosion prevention structures in the areas where water or Waste is Discharged;
  - e) The description of procedures for inspecting any erosion along the affected watercourse;
  - f) A description of, and mitigation measures for, any predicted hydrological or water quality impacts to downstream water bodies;
  - g) The schedule and locations for water quality monitoring;
  - h) The frequency, location, and procedures for monitoring flow rates in the Discharge stream and where appropriate, in the receiving water body;
  - i) The design of the pipeline and related facilities;
  - j) The procedures and rates for Dewatering or Drawdown to minimize erosion of the downstream water bodies, adjacent shorelines and, in winter, damage to spawning habitat from the development of icings, overflows, or glaciation; and
  - k) In the case of the Point Lake Dewatering Plan, the Plan shall include but not be limited to:
    - i. Caribou crossing details for dewatering pipelines; and
    - ii. Description of contingency and adaptive management actions to be implemented in the event that Stage 1 dewatering activities are delayed into September 2022 or later.
2. The **Lynx Lake Dewatering Plan** referred to in Part E, Condition 2 shall include, but not be limited to, the following information:
  - a) Volume of water produced by Dewatering;
  - b) A schedule for Dewatering and maximum pump rates;
  - c) Pumping methods including locations of intake and outflow structures;
  - d) The design of any erosion prevention structures in the areas where water or Waste is Discharged;
  - e) The description of procedures for inspecting any erosion along the affected watercourse;
  - f) A description of, and mitigation measures for, any predicted hydrological or water quality impacts to downstream water bodies;
  - g) The schedule and locations for that water quality monitoring necessary to evaluate any effects to the Receiving Environment caused by Lynx Lake Dewatering;



- h) The frequency, location, and procedures for monitoring flow rates in the Discharge stream and if appropriate, in the receiving water body;
  - i) The design of the pipeline and related facilities;
  - j) The procedures and rates for Dewatering to minimize erosion of the downstream water bodies, adjacent shorelines and, in winter, damage to spawning habitat from the development of icings, overflows, or glaciation; and
  - k) a description of how the Licensee will link the results of monitoring to those corrective actions necessary to prevent or minimize any Dewatering-related effects to the Receiving Environment. The description shall include, but not be limited to:
    - i. Definitions, with rationale, of Action Levels applicable to monitoring identified under Schedule 4, Condition 2(g) and (h). At a minimum, Action Levels should be set that:
      - 1. define a level of Discharge quality or receiving water quality that indicates that water from Lynx Lake should cease to be Discharged to Lac de Gras and be redirected to the King Pond Settling Facility; and,
      - 2. Define a level of Discharge quality or receiving water quality that indicates that additional monitoring (i.e., through the SNP or AEMP) should be undertaken;
    - ii. For each Action Level, a description of how exceedances of the Action Level will be assessed and generally which types of actions may be taken if the Action Level is exceeded.
3. The **Summary Reports** referred to in Part E, Condition 6 shall include, but not be limited to, the following information:
- a) The metered daily, monthly, and total pumping rates;
  - b) A description of any erosion problems encountered and mitigative actions taken;
  - c) The results of water quality monitoring and compliance with the regulated water quality requirements; and
  - d) A summary of any impacts to the Receiving Environment resulting from Dewatering or Drawdown activities.



## Schedule 5

### Part F: Conditions Applying to Construction

1. A **Construction Plan** referred to in Part F, Condition 2 shall include, but not be limited to, the following information:
  - a) A description of the facilities to be constructed;
  - b) The proposed location for the structures;
  - c) Any potential impacts to the aquatic environment;
  - d) A description of any monitoring including, but not limited to, sampling locations, parameters measured, and frequencies of sampling to be carried out to determine impacts to the aquatic environment, with rationale;
  - e) A detailed description of any measures used to prevent or mitigate impacts to the aquatic environment;
  - f) A schedule for the Construction;
  - g) Drawings of Engineered Structures stamped by a Professional Engineer; and
  - h) Description of adaptive management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the environment; and
  - i) The **Construction Plan** for the Pigeon Stream Diversion Channel is also to include the details of measures to prevent degradation of permafrost and/or ice lenses.
  
2. A **Waste Rock Storage Area Design Plan**, referred to in Part F, Condition 3 shall include, but not be limited to:
  - a) geothermal and short-term stability analyses stamped by a Professional Engineer.
  - b) In addition, in the case of the Point Lake Project WRSA(s) and Overburden Pile, the Plan shall include, but not be limited to:
    - i. Integrated construction and closure engineering design of metasediment piles, overburden stockpile, and WRSA seepage collection system;
    - ii. relevant background material for beneath the facility footprint including geotechnical, geochemical, and hydrogeological investigations;
    - iii. characterization of soil, rock, and groundwater conditions;
    - iv. design specifications and performance parameters;
    - v. stability analyses;
    - vi. a description of how the design has been optimized for Closure and Reclamation, including how it will achieve site-wide and component specific closure objectives;
    - vii. a description of how climate change projections and considerations have been incorporated;
    - viii. a description of any instrumentation and associated monitoring;





- ix. a description of any operations and maintenance requirements;
- x. a Construction Schedule;
- xi. a description of the materials for Construction;
- xii. Description of how the WRSA Design reduces impacts to caribou habitat;
- xiii. Preliminary cover design, including comment on the following aspects:
  - 1. Surface material description (for ekwò and wildlife);
  - 2. engineering and technical descriptions of the shape and anticipated land use capability achieved;
  - 3. Rationale for if the cover will be vegetated, and how;
  - 4. How the cover is expected to perform with climate change;
  - 5. How the company will protect water quality if the cover does not perform as well as expected (i.e., mitigations/contingencies);
  - 6. Seepage quality predictions;
  - 7. Discuss implication to the security estimate and propose adjustment as appropriate.
- xiv. Direct reference and utilization of the findings of the Point Lake WRSA Seepage Prediction Report that is required under Part H, Condition 26;
- xv. Thermal freeze-back model that includes: confirmation of the thickness of the proposed cover needed; evaluates if internal heat generation could impact freezing of PAG; and if water quality predictions are affected;
- xvi. Requirement for WRSA and Overburden Pile to be setback from the esker as far as possible, including a proposed setback distance in metres;
- xvii. Description of WRSA seepage collection system, including sumps and monitoring protocols; description of monitoring of roads and sumps to identify and respond to unexpected seepage losses; description and rationale for a groundwater monitoring program; contingencies if seepage is identified that is not being collected in sumps;
- xviii. Description of Construction and Closure monitoring programs;
- xix. A quality control and quality assurance plan;
- xx. Detailed evaluation of King Pond Settling Facility water management capacity with respect to Point Lake WRSA seepage inputs, and a recommendation if technical studies are necessary to propose amended or additional EQC for SNP Station 1616-43;
- xxi. Description of how thermal modelling confirm the thickness of the proposed cover thickness and evaluation of whether internal heat generation may impact freezing of Potential Acid Generating materials and influence water quality predictions;
- xxii. Description of how the WRSA design has used Traditional Knowledge and western science to maximize caribou movement through the Point Lake Project area;



- xxiii. Alternatives analysis for the siting and design of the piles;
- xxiv. Statement of pile design objectives to include (1) minimizing disturbance of caribou habitat to maintain space for caribou migration; (2) protecting the esker; (3) fitting into the natural design; and (4) reclamation of piles to resemble natural hills; and
- xxv. Holistic description of how the footprint, height, and location of the waste rock and overburden piles maximize caribou movement.

DRAFT



## Schedule 6

### Part H: Conditions Applying to Waste Disposal

1. The **Wastewater and Processed Kimberlite Management Plan** referred to in Part H, Condition 2 shall be in accordance with the NWT Water Board's *Guidelines for Tailings Impoundment in the Northwest Territories, February 1987*, and shall include, but not be limited to, the following information:

#### Acid Rock Drainage (ARD) Characterization

- a) Representative sampling and testing of Processed Kimberlite;
- b) A description of the process to be used to regularly assess and revise the plans based on ongoing data collection through this program or through the attached Surveillance Network Program, the Aquatic Effects Monitoring Program, Seepage Surveys, or other environmental monitoring programs;

#### Wastewater and Processed Kimberlite Management

- c) A comprehensive description of all sources and types of Waste related to the Project where not provided in the **Waste Rock and Ore Storage Management Plan** as approved by the Board;
- d) A description of any proposed physical or chemical treatment of Waste prior to Discharge to the Long Lake Containment Facility, the King Pond Settling Facility, the Phase 1 Tailings Containment Area, Two Rock Sedimentation Pond, or to the Receiving Environment;
- e) A description, including maps to scale, of the locations of monitoring stations for ground temperature, water quality, water Discharge and Processed Kimberlite elevation, including the sampling protocols and frequency to be undertaken at each station;
- f) A schedule of Processed Kimberlite Discharge within the Long Lake Containment Facility over the term of this Licence, including detailed maps showing deposition locations;
- g) Capacity status and projected life expectancy of the Processed Kimberlite deposition locations and Two Rock Sedimentation Pond;
- h) An anticipated schedule of volumes of Discharge to and from the Two Rock Sedimentation Pond, King Pond Settling Facility, Misery Pit Minewater Facility, and Lynx Pit;
- i) A series of contingency options should Two Rock Sedimentation Pond, King Pond Settling Facility, Misery Pit Minewater Facility, or Lynx Pit approach or exceed capacity;
- j) Any operational changes and Modifications which may impact the **Wastewater and Processed Kimberlite Management Plan**;
- k) A description of monitoring of quantity and quality of water, to:
  - i. calibrate the water models used to make predictions in the EA;
  - ii. assess the suitability of contingencies; and
  - iii. evaluate the performance of contingencies used;



- l) A description of the Groundwater monitoring and reporting program for the open pits and underground mines; and
- m) Description of adaptive management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the environment.

2. The **Waste Rock and Ore Storage Management Plan** referred to in Part H, Condition 3 shall be in accordance with the Department of Indian and Northern Affairs and Northern Development's *Guidelines for Acid Rock Drainage Protection in the North*, September 1992, or in the case of the Point Lake Development, *Mine Environment Neutral Drainage's Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials*, December 2009, and shall include, but not be limited to, the following information:

Acid Rock Drainage (ARD) Characterization

- a) Characterization of the rock types, geology, and mineralogy of the rock units for each mine component including each pit or pipe or mine workings, the quantity of rock, Waste or sludge, or the surface area exposure in pit walls;
- b) Representative sampling and testing of each rock unit;
- c) Assessment of potential for Acid/Alkaline Rock Drainage and for metal leaching from ore stockpiles, Waste Rock, and pit wall rock, both during operation and after closure;
- d) Description of predicted loadings and/or impact on receiving water chemistry from each source, incorporating the results of Seepage surveys where available;
- e) Geochemical characterization of material to be used for Reclamation;
- f) Description of the process to be used to regularly assess and revise the plans based on ongoing data collection through this program or through the attached Surveillance Network Program, the Aquatic Effects Monitoring, Seepage Surveys, or other environmental monitoring programs;

Waste Rock and Ore Storage Management

- g) A schedule of ore stockpiling, and Coarse Processed Kimberlite and Waste Rock production by rock type, tonnage, and destination over the term of this Licence;
- h) A complete description, including site maps to scale, of each proposed ore and Waste Rock Storage Area;
- i) Detailed descriptions of the different types of solid Waste disposed of and the locations for the disposal of solid Waste and Sewage sludge within the Waste Rock Storage Area;
- j) An identification of all potential sources of Seepage for each Waste Rock Storage Area and the distance to the downstream Receiving Environment;



- k) Detailed proposals for management of Seepage, including water quality monitoring, collection, treatment, re-routing, final disposal, and for incorporating the studies and plans developed under Part H, Condition 3 of this Licence;
  - l) Detailed Construction Plans and drainage management for Waste Rock Storage Areas used for containment of the Misery schist, Point Lake metasediment, and other Waste Rock types that may be identified as problematic through Acid/Alkaline Rock Drainage testing, including contingency plans for controlling runoff and Seepage water chemistry;
  - m) Temperature analysis of all Waste Rock Storage Areas having acid/alkaline potential to include the effect of oxidation reactions on predicted Acid/Alkaline Rock Drainage generation rates;
  - n) Detailed descriptions of how Seepage surveys will be carried out to meet the requirements of Part H, Condition 4;
  - o) For the Point Lake, Sable, Pigeon, and Misery pits, a description of the geochemical criteria for the management and placement of potentially ARD Waste Rock and hydrocarbon contaminated materials within the Waste Rock Storage Areas. This shall include a section describing the process for segregation of the various rock types;
  - p) A description of co-placement method, limits, and controls for blending and layering;
  - q) A description of confirmatory sampling and field inspection program to verify co-placement;
  - r) A description of confirmatory process and field inspection program to verify pegmatite volumes in the Point Lake Waste Rock Pit and Storage Area;
  - s) A description for testing that will be conducted if pegmatite volumes are greater than 5% of the Point Lake Waste rock;
  - t) A description of a procedure to be implemented during Point Lake open pit operations to identify, using operational monitoring data, a sample of Point Lake metasediment that contains 95<sup>th</sup> percentile concentrations of solid phase and leachate constituents, and a description of humidity cell test and other test and reporting procedures for that sample;
  - u) Description of adaptive management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the environment; and
  - v) Characterization and rationale for validating or altering the approved overburden monitoring program approach with respect to the Point Lake Project.
3. The Seepage survey referred to in Part H, Condition 4 shall be conducted in accordance with the Waste Rock and Ore Storage Management Plan referred to in Part H, Condition 3, and on the following basis:
- a) Sampling of detected Seepage twice per year excluding the Point Lake WRSA; once during spring freshet, and again in late summer or fall;
  - b) Sampling of detected Seepage monthly during active flow at the Point Lake WRSA;



- c) Testing in the field shall include measurements of volume and rate of flow, field pH, and conductivity;
  - d) Laboratory analysis of each sample shall include Major Ions (as defined in the attached Surveillance Network Program), pH, conductivity, sulphate, nitrogen as total ammonia, total suspended solids (TSS), and dissolved metals by inductively coupled plasma (ICP) mass spectrometry;
  - e) Laboratory analysis of Seepage samples in areas down gradient of the Land Farm, Contaminated Snow Containment Facility, and the Racetrack shall include TPH and BTEX as defined in the attached Surveillance Network Program;
  - f) All data collected is to be reported to the Board as part of the **Annual Report** required under Part B, Condition 10 and shall include an overview analysis of major trends, site plans indicating the locations of Seepage, and summary of recommendations for future Seepage monitoring or management actions; and
  - g) A report interpreting the results of all survey data collected since Project inception shall be submitted to the Board for approval every three years beginning March 31, 2014, and shall include site plans indicating the locations of Seepage, the Quality Assurance/Quality Control (QA/QC) protocols used, and a consideration of how the results will affect the **Waste Rock and Ore Storage Management Plan** required under Part H, Condition 3.
4. The **Two Rock Outfall Report** referred to in Part H, Condition 21 shall include, but not be limited to, the following information:
- a) The specifications of the proposed Discharge pipeline and diffuser;
  - b) The location of the end of the pipe within Horseshoe Lake and a detailed rationale for selection of that location;
  - c) The results of modeling the initial mixing of effluent into Horseshoe Lake based on the selected placement and specifications of the outfall;
  - d) A proposed location for Surveillance Network Program Station 0008-Sa9 that will allow verification of the model of initial effluent mixing in Horseshoe Lake; and
  - e) The design for a plume delineation study to confirm initial effluent mixing in Horseshoe Lake.
5. The EQC for chloride, nitrate, and sulphate are determined based on the equations shown in Part H, Conditions 15(a), 15(b), and 15(c). Tables that can be used for quick reference of select values resulting from those equations are provided below:

Hardness (mg/L)	EQC at 1616-30		
	Nitrate as N (mg/L)	Sulphate (mg/L)	Chloride (mg/L)



	<b>Max. Average</b>	<b>Max. Grab</b>	<b>Max. Average</b>	<b>Max. Grab</b>	<b>Max. Average</b>	<b>Max. Grab</b>
<10	1.2	2.3	45.2	90.4	64.4	129
10-20	1.7	3.5	65.4	131	112	223
20-30	2.8	5.6	104	208	171	342
30-40	3.9	7.7	142	283	210	421
40-50	4.9	9.8	178	356	240	480
50-60	5.9	12	214	428	263	526
60-70	7.0	14	249	498	283	565
70-80	8.0	16	284	567	299	599
80-90	9.0	18	318	636	314	628
90-100	10	20	352	704	327	654
100-110	11	22	386	771	339	677
110-120	12	24	419	838	349	698
120-130	13	26	419	838	359	718
130-140	14	28	419	838	368	736
140-150	15	31	419	838	380	760
150-160	16	32	419	838	384	768
>160	16	33	419	838	388	775

<b>Hardness (mg/L)</b>	<b>Nitrate as N (mg/L)</b>		<b>Sulphate (mg/L)</b>	
	<b>Max. Average</b>	<b>Max. Grab</b>	<b>Max. Average</b>	<b>Max. Grab</b>
<10	2.0	4.0	77	343
10-20	2.9	5.9	111	406
20-30	4.8	9.5	177	502
30-40	6.6	13	241	577
40-50	8.3	17	303	641
50-60	10	20	363	697
60-70	12	24	423	747
70-80	14	27	423	747
80-90	15	31	423	747
90-100	17	34	423	747
100-110	19	37	423	747
110-120	20	41	423	747
120-130	22	44	423	747
130-140	24	47	423	747
140-150	26	53	423	747
150-160	27	54	423	747



>160	28	56	423	747
------	----	----	-----	-----

Chloride EQC at 1616-43			
King Pond Hardness (mg/L as CaCO <sub>3</sub> )	Cujo Lake Hardness (mg/L as CaCO <sub>3</sub> )	Maximum Average (mg/L)	Maximum Grab (mg/L) <sup>1</sup>
<17	<10	109	219
17-34	10-20	190	380
34-51	20-30	291	520
51-68	30-40	358	574
68-85	40-50	408	619
85-102	50-60	447	657
102-119	60-70	480	690
119-136	70-80	509	720
136-153	80-90	534	747
153-170	90-100	556	772
170-187	100-110	576	796
187-204	110-120	594	817
204-221	120-130	610	838
221-238	130-140	625	857
238-255	140-150	640	876
255-272	150-160	653	893
>272	>160	659	902

<sup>1</sup> Maximum grab EQC values not shaded are based on 2 times the maximum average EQC; those shaded in grey are equal to the acute WQO for chloride, which is less than 2 times the maximum average EQC. The Cujo Lake hardness shown above, assumes a dilution factor of 1.7.

Cadmium EQC at 1616-43		
Cujo Lake Hardness (mg/L as CaCO <sub>3</sub> )	Maximum Average (mg/L)	Maximum Grab





		(mg/L) <sup>1</sup>
<17	0.00006	0.00012
17-20	0.00007	0.00014
20-40	0.00010	0.00020
40-60	0.00015	0.00030
60-80	0.00020	0.00040
80-100	0.00025	0.00049
100-120	0.00029	0.00058
120-140	0.00033	0.00067
140-160	0.00038	0.00075
160-180	0.00042	0.00084
180-200	0.00046	0.00092
200-220	0.00050	0.00100
220-240	0.00054	0.00108
240-260	0.00058	0.00115
260-280	0.00061	0.00123
>280	0.00063	0.00127

<sup>1</sup> Maximum grab EQC values are based on 2 times the maximum average EQC, which is expected to be consistently less than the acute WQO for cadmium at hardness levels in King Pond.

Hardness (mg/L)	EQC at 1616-47			
	Nitrate as N (mg/L)		Sulphate (mg/L)	
	Max. Average	Max. Grab	Max. Average	Max. Grab
<10	2.7	5.4	103	343
10-20	3.9	7.8	148	406
20-30	6.4	13	237	502
30-40	8.8	18	321	577
40-50	11	22	404	641
50-60	14	28	485	697
60-70	16	32	565	747
70-80	18	36	565	747



80-90	20	40	565	747
90-100	23	46	565	747
100-110	25	50	565	747
110-120	27	54	565	747
120-130	30	60	565	747
130-140	32	64	565	747
140-150	34	68	565	747
150-160	36	72	565	747
>160	37	74	565	747

6. The Point Lake WRSA Seepage Prediction Report referred to in Part H, Condition 26 shall include but not be limited to the following:
- a) Prediction of seepage water quality at operations and closure phases of the Point Lake WRSA, including the use of water quality and quantity models;
  - b) A Point Lake Metasediment Net Acid Generation Report including:
    - i. Discussion and application of Shake Flask Extraction and Net Acid Generation test results;
    - ii. an investigation into cause of consistently lower pH values in 2021 samples compared with previous Acid Base Accounting samples as related to Point Lake metasediment;
    - iii. identification of parameters of potential concern;
    - iv. comparison of Point Lake Shake Flask Extraction leachate concentrations with Jay Project metasediment Shake Flask Extraction leachate concentrations;
    - v. inclusion of all data and test results used in the report, including results from Humidity Cell Tests;
    - vi. Prediction of range of potential timeframes to onset of acidic conditions based on Humidity Cell Tests;
    - vii. a description of how ongoing/future Humidity Cell Test data will be incorporated into Point Lake seepage predictions; and
    - viii. a description of any further necessary testing.
  - c) A comparison of water quality predictions to closure criteria.



## Schedule 7

### Part I: Conditions Applying to Contingency Planning

1. The **Hydrocarbon-Contaminated Materials Management Plan** referred to in Part I, Condition 4 shall describe the following:
  - a) Locations and designated uses of existing or planned facilities used for storage, treatment, disposal or management of hydrocarbon-contaminated solids and liquids;
  - b) A general description of the facilities described under Schedule 7, Condition 1(a);
  - c) Operating history of existing facilities and chemical characteristics of existing stockpiles of hydrocarbon-contaminated materials;
  - d) A general description of the planned activities and processes for storage;
  - e) Monitoring, treatment, and disposal or management of hydrocarbon-contaminated materials;
  - f) Monitoring program to test for migration, leakage, or Seepage of hydrocarbon contaminated materials;
  - g) The process for review of information and revising the plan as necessary;
  - h) Identification of ways to reduce the generation of hydrocarbon-contaminated materials; and
  - i) Reporting to the Board on activities carried out under this plan, including details on the volumes of hydrocarbon-contaminated materials treated and treatment efficacy.



## Schedule 8

### Part J: Conditions Applying to Aquatic Effects

1. The **AEMP Design Plan** for the Aquatic Effects Monitoring Program referred to in Part J, Conditions 2, 3, and 4 shall include, but not be limited to, the following:
  - a) Clearly identifiable objectives of the Aquatic Effects Monitoring Program;
  - b) A description of the area to be monitored including maps showing all sampling and control sites, as well as the overall Zone of Influence of the Project;
  - c) A description of the sampling program that will be conducted to achieve the objectives of the Aquatic Effects Monitoring Program including the variables, sample media, monitoring protocols, and Quality Assurance/Quality Control procedures;
  - d) Statistical design criteria, including a description of sampling frequencies for each parameter that ensures both accurate characterization of short-term variability and the collection of sufficient data to establish long-term trends;
  - e) A description of procedures to analyze and interpret data collected and procedures to identify and address information gaps;
  - f) A description of evaluation criteria for the Aquatic Effects Monitoring Program and approaches to revise and refine the Aquatic Effects Monitoring Program;
  - g) A description of how proposed changes in monitoring protocols will be calibrated to previous monitoring procedures and data sets so that continuity, consistency, validity, and usability of monitoring results will be maintained;
  - h) The findings of an integrated biological, chemical, and biophysical assessment of the monitoring data and rationale for how the results of these findings are incorporated into revisions of the **AEMP Design Plan**;
  - i) A process for measuring Project-related effects to:
    - i. physical limnology (dissolved oxygen/temperature profiles, and water clarity);
    - ii. lake water quality (major ions, nutrients, and metals) under ice and during the open-water season (August);
    - iii. stream water quality (major ions, nutrients, and metals) during the open-water season (freshet, July, August, and September);
    - iv. sediment quality (nutrients and metals) every three years during the open-water season (August);
    - v. chlorophyll a concentrations, phytoplankton density, and community composition during the open-water season (August);
    - vi. zooplankton biomass, density, and community composition during the open-water season (August);
    - vii. lake and stream benthos density, and community composition during the open-water season (August);



- viii. fish community, tissue contaminant levels, and biological characteristics (length, weight, age, sex, sexual maturity, reproductive status, gonad weight, number of eggs, and liver weight); and
  - ix. fish parasites, deformities, erosion, lesions, and tumors, as well as chlorinated phenolics (known to impair fish palatability);
- j) The establishment of sufficient control sites outside the immediate Zone of Influence of mining operations and associated activities to provide the necessary information on reference conditions including:
- i. a detailed rationale for site selection;
  - ii. an assessment of adequacy of existing data for representing predevelopment conditions; and
  - iii. an assessment of the degree to which each site is representative;
- k) The establishment of sufficient monitoring sites within the Zone of Influence including sites located at:
- i. lakes in the vicinity of the Project including, but not limited to, Leslie Lake, Moose Lake, Nema Lake, Slipper Lake, and connecting streams;
  - ii. lakes in the vicinity of the Misery operation and connecting streams;
  - iii. Lac de Gras in the vicinity of the outflow of Slipper Lake;
  - iv. Lac du Sauvage in the vicinity of the Misery operation;
  - v. lakes in the vicinity of the Sable Development (when constructed) including, but not limited to, Horseshoe Lake and outflow, Ulu Lake, Ross Lake and outflow, Lower Exeter Lakes, and connecting streams;
  - vi. lakes in the vicinity of the Pigeon Development (when constructed) including, but not limited to, Upper Exeter Lake, Pigeon Fay Stream and Fay Lake;
  - vii. lakes in the vicinity of the Lynx Development (when constructed) including, but not limited, to Cujo Lake;
  - viii. lakes in the vicinity of the Point Lake Project including, but not limited to Connor Lake, Thinner Lake, and Alexia Lake; and
  - ix. any additional sites necessary to evaluate the spatial extent of impacts associated with the Project.
- l) A description of the procedures that will be used to minimize the impacts of the Aquatic Effects Monitoring Program on fish populations;
- m) A description of the procedures that will be used to assess the accuracy of the Licensee's impact predictions and to evaluate the effectiveness of the proposed mitigation measures;
- n) A description of how the data collected in the Aquatic Effects Monitoring Program will be used to identify the need for additional mitigation strategies to minimize the impacts of the Project;
- o) A summary of how Traditional Knowledge will be collected and incorporated into the Aquatic Effects Monitoring Program;



- p) An evaluation of the Project-related effects on the Receiving Environment that may contribute to cumulative effects in the region;
  - q) A description of a **Response Framework** that will link the results of the AEMP to those actions necessary to ensure that Project-related effects on the Receiving Environment remain within an acceptable range. The **Response Framework** shall include:
    - a. definitions, with rationale, for Significance Thresholds and tiered Action Levels applicable to biotic and abiotic parameters monitored in the aquatic Receiving Environment of the Project; and
    - b. for each Action Level:
      - i. a description of the rationale including, but not limited to, a consideration of the predictions and conclusions of the Environmental Assessment as well as AEMP results to date;
      - ii. a description of how exceedances of Action Levels will be assessed; and
      - iii. a general description of what types of actions may be taken if an Action Level is exceeded;
2. The **Aquatic Effects Re-Evaluation Report** referred to in Part J, Condition 5 shall include:
- a) A scientifically defensible interpretation and discussion of the data, including data collected as part of snow quality surveys;
  - b) An evaluation of the overall effectiveness of the Aquatic Effects Monitoring Program to date;
  - c) A summary of the results of the Aquatic Effects Monitoring Program from Project inception, an integrated biological, chemical, and physical assessment of the monitoring data, and a comparison against Environmental Assessment (EA) predictions; and
  - d) Updated predictions of Project-related effects on the Receiving Environment based on monitoring results obtained since Project inception.
3. The **AEMP Annual Report** referred to in Part J, Condition 6 shall include the following information:
- a) A summary of activities conducted under the Aquatic Effects Monitoring Program;
  - b) Tabular summaries of all data and information generated under the Aquatic Effects Monitoring Program in an electronic and printed format acceptable to the Board; and
  - c) An assessment of any identified environmental changes relative to baseline conditions that occurred as a result of the Project.
4. The **Response Plan** referred to in Part J, Condition 9(b) shall contain the following information for each parameter that has exceeded an Action Level:
- a) A description of the parameter, its relation to Significance Thresholds, and the ecological implication of the Action Level exceedance;
  - b) A summary of how the Action Level exceedance was determined and confirmed;



- c) A description of likely causes of the Action Level exceedance and potential mitigation options if appropriate;
  - d) A description of actions to be taken by the Licensee in response to the Action Level exceedance including:
    - i. a justification of the selected action which may include a cost/benefit analysis;
    - ii. a description of timelines to implement the proposed actions;
    - iii. a projection of the environmental response to the planned actions, if appropriate;
    - iv. a monitoring plan for tracking the response to the actions, if appropriate; and
    - v. a schedule to report on the effectiveness of actions and to revise the AEMP Response Plan as required;
  - e) Any other information that is necessary to assess the response to an Action Level exceedance or that has been requested by the Board.
5. The **Nitrogen Response Plan** referred to in Part J, Condition 10 shall include, but not be limited to:
- a) A description of current nitrogen (i.e. nitrate and ammonia) sources and management including:
    - i. Identification of which recommendations made by Golder, in their 2008 *Blasting Practices at Ekati Mine and Sources of Nitrate Available for Dissolution by Mine Drainage Water*, have been implemented; and
    - ii. Rationale for any recommendations made by Golder that have not been implemented;
  - b) A report produced by appropriate experts following an audit to assess the current blasting practices at EKATI; and
  - c) An implementation plan which addresses the recommendations from the audit report identified under b) and includes:
    - i. justification of the selected actions to minimize nitrogen losses, which may include a cost/benefit analysis;
    - ii. a description of timelines to implement the selected actions; and
    - iii. a schedule to report on the effectiveness of actions and to revise the **Nitrogen Response Plan** as required.



**Schedule 9**  
**Part K: Closure and Reclamation**

1. The **Interim Reclamation and Closure Plan** shall include, but not be limited to:
  - a) Reclamation Research Plans related to the uncertainty associated with, but not limited to the following:
    - i. Freshwater cap depth of Panda pit;
    - ii. Freshwater cap depth of Koala pit; and
    - iii. Use of lakebed sediments as an additive mixture for Reclamation substrates.
  - b) Description of engagement on the use of glacial till and overburden material for vegetation for the main Ekati site;
  - c) Description of the accelerated Reclamation of the Long Lake Containment Facility;
  - d) Description of how the input received from the Traditional Knowledge Elders group was incorporated for closure planning initiatives, including but not limited to the Construction of Waste Rock management area egress ramps;
  - e) Details for monitoring the Lynx pit Lake overflow;
  - f) Description of how pit flooding plan(s) will be linked to end of mining;
  - g) An updated security to distinguish between the allocation between land and water related security; and
  - h) A Point Lake Overburden Use Plan that shall include, but not be limited to:
    - i. A list of all possible uses of overburden at the Ekati Mine site;
    - ii. For each possible use, the estimated volume of overburden that could be used;
    - iii. For each possible use, an evaluation of the pros and cons associated with the use;
    - iv. For each possible use, Arctic's conclusion about feasibility, with rationale; and
    - v. The total volume of Point Lake Project overburden that Arctic proposes to use and the volume of the overburden pile that will remain on-site after closure.
2. A Waste Rock Storage Area Cover Design Plan, referred to in Part K, Condition 11, shall include, but not be limited to:
  - a) Surface material description (for ekwò and wildlife);
  - b) Description of the final shape, look, and feel of the cover;
  - c) Rationale for if the cover will be vegetated, and how;
  - d) Thermal modeling using current and credible climate change predictions to confirm what type and thickness of cover is needed and describe thermal conditions in the pile(s);
  - e) A description of how the cover is expected to perform with climate change and apply engineering judgement to evaluate whether the cover can reasonably be expected to perform in the period after climate change predictions are reliable;
  - f) How the company will protect water quality if the cover does not perform as well as expected, including mitigations and contingencies;
  - g) Updated water quality predictions using seepage monitoring data and rock testing during





- mining, and other relevant geochemical testing or monitoring information;
- h) Identification of the Closure Objectives and Closure Criteria that implementation of the engineered design is to satisfy in whole or in part;
  - i) Identification of new or updated Closure Objectives, Closure Activities, and/or Closure Criteria being proposed including rationale;
  - j) A description and supporting evidence to demonstrate how the cover will meet relevant closure objectives and criteria;
  - k) A comparison of water quality predictions to component-specific and site-wide closure criteria;
  - l) Description of how the Licensee has engaged with Parties on and considered engagement on:
    - xxvi. The final shape, look, and feel of the cover;
    - xxvii. Rationale for if the cover will be vegetated, and how; and
    - xxviii. How the cover will meet relevant closure objectives; and
  - m) Any additional information requested by the Board.





**Annex B: Surveillance Network Program**

**Annexed to Water Licence W2020L2-0004**

**Part A - Surveillance Network Program Description and Sampling Requirements**

1. Location of sampling sites and specific monitoring requirements are as follows:

**Dewatering or Drawdown at reactivated Surveillance Network Program (SNP) Station or Temporary SNP Station**

Description:	During any possible future Dewatering or Drawdown where an existing SNP station is reactivated or a temporary SNP station is set up, samples shall be taken at the Dewatering or Drawdown Discharge point of each station.		
Location:			
Sampling Frequency:	Once prior to commencement of Dewatering or Drawdown	Daily during Dewatering or Drawdown	Once on the final day of Dewatering or Drawdown
Sampling Parameters:	TSS, total ammonia-N, major ions <sup>1</sup> , physical parameters <sup>2</sup> and total metals <sup>3</sup>	pH, TSS and turbidity	TSS, total ammonia-N, major ions <sup>1</sup> , physical parameters <sup>2</sup> and total metals <sup>3</sup>
Rationale for Station:	To document the quality of water being pumped from a natural water body through a Dewatering or Drawdown program.		

**Surveillance Network Program (SNP) Station 1616-2 (permanently inactive)**

Description:	Little Lake at freshwater intake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	Monitor the quality of drinking water taken from Little Lake.
Rationale for Status:	Freshwater intake structure was never created at Little Lake as there are no plans to use Little Lake for drinking water.

**Surveillance Network Program (SNP) Station 1616-3 (active)**

Description:	Discharge from the Phase 1 Tailings Containment Area. Point of Compliance.	
Location:	517953 7173740	
Sampling Frequency:	Up to four weeks prior to Discharge. Sampling not required unless Discharge is reactivated.	On the first day of Discharge, weekly during Discharge and on the final day of Discharge.
Sampling Parameters:	pH, TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> , TPH <sup>5</sup> and BTEX <sup>6</sup>	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water Discharged from the Phase 1 Tailings Containment Area.	
Rationale for Status:	Presently no Discharge, and none anticipated.	

**Surveillance Network Program (SNP) Station 1616-5 (permanently inactive)**

Description:	Discharge from the Fox Underground Minewater Settling Pond.	
Location:		
Sampling Frequency:		
Sampling Parameters:		
Rationale for Station:	To monitor the quality of water released to the environment from the (closed) Fox underground development.	
Rationale for Status:	No future Discharge.	

**Surveillance Network Program (SNP) Station 1616-8 (permanently inactive)**

Description:	Discharge from Process Mill Clarifier overflow pipeline	
Location:		
Sampling Frequency:		
Sampling Parameters:		
Rationale for Station:	To monitor the quality of water released to the environment from the (no longer present) Process Mill Clarifier overflow pipeline.	
Rationale for Status:	No future Discharge.	

**Surveillance Network Program (SNP) Station 1616-10 (permanently inactive)**

Description:	Polar Lake Outflow.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 1616-11 (permanently inactive)**

Description:	Freshwater intake from the Grizzly Lake Pumphouse.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water to the drinking water treatment plant.
Rationale for Status:	Under the SNP, drinking water monitoring is not required.

**Surveillance Network Program (SNP) Station 1616-12 (active)**

Description:	North Panda Lake adjacent to the Panda Lake Dam.
Location:	520105 7178295
Sampling Frequency:	Monthly during periods of flow
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the Panda Diversion Channel.
Rationale for Status:	In combination with SNP 1616-13, this information is useful to document potential changes related to a Licensed water use, diversion of water through the Panda Diversion Channel.

**Surveillance Network Program (SNP) Station 1616-13 (active)**

Description:	Panda Diversion Channel prior to entering Kodiak Lake.
Location:	518421 7175881
Sampling Frequency:	Monthly during periods of flow
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> .
Rationale for Station:	To monitor the quality of water exiting the Panda Diversion Channel.
Rationale for Status:	In combination with SNP 1616-12, this information is useful to document potential changes related to a Licensed water use, diversion of water through the Panda Diversion Channel.

**Surveillance Network Program (SNP) Station 1616-14 (permanently inactive)**

Description:	Panda Lake at Dewatering intake
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Panda Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-15 (permanently inactive)**

Description:	Koala Lake at Dewatering intake
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Koala Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-16 (permanently inactive)**

Description:	Discharge from the Panda/Koala Sedimentation Pond downstream of the impervious Seepage collection Dam
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Discharged (in the past) from the named sedimentation pond.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-17 (permanently inactive)**

Description:	Runoff from the area nearby Seep-19 location which drains into Bearclaw Lake, northeast of the Panda/Koala Waste Rock Storage Areas.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of Seepage water from the Panda/Koala/Beartooth Waste Rock Storage Area near Beartooth Lake.
Rationale for Status:	Duplicate of Seepage monitoring stations SEEP-331, SEEP-018B and SEEP-019.

**Surveillance Network Program (SNP) Station 1616-20 (active)**

Description:	Runoff from the Southwestern Catchment Area of the plant site.
Location:	517931 7176183
Sampling Frequency:	Once each year during open water.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> , TPH <sup>5</sup> and BTEX <sup>6</sup>
Rationale for Station:	To monitor the quality of runoff water entering Kodiak Lake from the Southwestern Catchment Area of the plant site.
Rationale for Status:	This provides information relevant to mine activities.

**Surveillance Network Program (SNP) Station 1616-21 (permanently inactive)**

Description:	Runoff from the Northern Catchment Area of the plant site
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To monitor the quality of runoff water entering Kodiak Lake from the Southwestern Catchment Area of the plant site.
Rationale for Status:	Station no longer exists. This area is occupied by the Panda/Koala Waste Rock Storage Area.

**Surveillance Network Program (SNP) Station 1616-22 (permanently inactive)**

Description:	Sewage Treatment Facilities outfall into Kodiak Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To monitor the quality of water released (in the past) to Kodiak Lake from the start-up Sewage Treatment Facility.
Rationale for Status:	The facility no longer exists. Treated Sewage effluent is directed to the Long Lake Containment Facility.

**Surveillance Network Program (SNP) Station 1616-24 (permanently inactive)**

Description:	Airstrip Lake at Dewatering Intake
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Airstrip Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-26 (permanently inactive)**

Description:	Long Lake Containment Facility, upstream of Cell C intermediate dyke, in the area most likely to collect ponded water
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in Cell C of the LLCF.
Rationale for Status:	Station was replaced with 1616-26b.

**Surveillance Network Program (SNP) Station 1616-26a (permanently inactive)**

Description:	Long Lake Containment Facility, upstream of the Cell C intermediate dyke in the area most likely to collect ponded water.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale:	To document the quality of water in Cell C of the LLCF.
Rationale for Status:	Station was replaced with 1616-26b.

**Surveillance Network Program (SNP) Station 1616-26b (active)**

Description:	Long Lake Containment Facility, Cell C.
Location:	514784 7176844
Sampling Frequency:	Twice annually – once under ice cover and once during open water.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> nutrients <sup>4</sup> and ecological monitoring <sup>7</sup>
Rationale for Station:	To document the quality of water in Cell C of the LLCF.
Rationale for Status:	Provides information relevant to mine activities.



**Surveillance Network Program (SNP) Station 1616-27 (permanently inactive)**

Description:	Long Lake Containment Facility, downstream of the Cell B intermediate dyke
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in Cell C of the LLCF.
Rationale for Status:	Water quality in Cell C of the LLCF is monitored under SNP Station 1616-26b.

**Surveillance Network Program (SNP) Station 1616-28 (permanently inactive)**

Description:	Long Lake Containment Facility, downstream of the Cell C intermediate dyke in the area most likely to collect ponded water.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in Cell D of the LLCF.
Rationale for Status:	Station was replaced with 1616-28a.

**Surveillance Network Program (SNP) Station 1616-28a (active)**

Description:	Long Lake Containment Facility, Cell D
Location:	515070 7174910
Sampling Frequency:	Twice annually – once under ice cover and once during open water, at two depths – one near the surface and one at depth.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> and ecological monitoring <sup>7</sup>
Rationale for Station:	To document the quality of water in Cell D of the LLCF.
Rationale for Status:	Provides information relevant to mine activities.

**Surveillance Network Program (SNP) Station 1616-29 (permanently inactive)**

Description:	Long Lake Containment Facility, downstream of the Cell D intermediate dyke.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in Cell E of the LLCF.
Rationale for Status:	Station was replaced with 1616-29a.

**Surveillance Network Program (SNP) Station 1616-29a (active)**

Description:	Long Lake Containment Facility, Cell E
Location:	513568 71734667
Sampling Frequency:	Twice annually – once under ice cover and once during open water, at two depths – one near the surface and one at depth.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> and ecological monitoring <sup>7</sup>
Rationale for Station:	To document the quality of water in Cell E of the LLCF.
Rationale for Status:	Provides information relevant to mine activities.

**Surveillance Network Program (SNP) Station 1616-30 (permanently inactive)**

Description:	Cell E of the Long Lake Containment Facility, upstream of decant structure to Leslie Lake. Point of Compliance.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To monitor the quality of water in and Discharged from Cell E of the LLCF.
Rational for Status:	Station replaced with 1616-30a and 1616-30b.

**Surveillance Network Program (SNP) Station 1616-30a (active)**

Description:	Cell E of the Long Lake Containment Facility, upstream of decant structure to Leslie Lake. Point of Compliance.		
Location:	514021 7173081		
Sampling Frequency:	Up to four weeks prior to Discharge	Quarterly	Once each year during open water and once each year under-ice.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , dissolved metals <sup>9</sup> , nutrients <sup>4</sup> , TPH <sup>5</sup> , BTEX <sup>6</sup> , and acute <sup>8a</sup> and chronic <sup>8b</sup> toxicity tests	pH, TSS, nutrients <sup>4</sup> , TPH <sup>5</sup> , BTEX <sup>6</sup> , oil and grease, Total Coliforms and Escherichia coli	Acute <sup>8a</sup> and chronic <sup>8b</sup> toxicity tests
Rationale for Station:	To provide a pre-Discharge sample location (for 1616-30b) and for other special sampling requirements.		
Rationale for Status:	Primary Discharge location.		

**Surveillance Network Program (SNP) Station 1616-30b (active)**

Description:	Discharge from Cell E of the Long Lake Containment Facility. Point of Compliance.		
Location:	To be determined.		
Sampling Frequency:	On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.		
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , dissolved metals <sup>9</sup> , nutrients <sup>4</sup> , TPH <sup>5</sup> , and BTEX <sup>6</sup>		
Rationale for Station:	To monitor the quality of water Discharged to the Receiving Environment from Cell E of the LLCF.		
Rationale for Status:	Primary Discharge location.		

**Surveillance Network Program (SNP) Station 1616-32 (permanently inactive)**

Description:	Outlet of Leslie Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in the Receiving Environment.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 1616-33 (permanently inactive)**

Description:	Outlet of Moose Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in the Receiving Environment.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 1616-34 (permanently inactive)**

Description:	Outlet of Nema Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in the Receiving Environment.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 1616-35 (permanently inactive)**

Description:	Outlet of Slipper Lake prior to entering Lac de Gras.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water in the Receiving Environment.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 1616-36 (permanently inactive)**

Description:	Freshwater intake at Thinner Lake Pumphouse.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	Monitor the quality of drinking water taken from Thinner Lake.
Rationale for Status:	Freshwater intake structure has not been and will not be constructed at Thinner Lake.

**Surveillance Network Program (SNP) Station 1616-37 (active)**

Description:	Sewage Treatment Facilities outfall into the King Pond Settling Facility.
Location:	To be determined.
Sampling Frequency:	Quarterly. Sampling is not required until Discharge is activated.
Sampling Parameters:	pH, TSS, nutrients <sup>4</sup> , BOD <sub>5</sub> , TPH <sup>5</sup> , BTEX <sup>6</sup> , oil and grease, Total Coliforms and Escherichia coli
Rationale for Station:	To monitor the quality of water entering the KPSF from the Sewage Treatment Facility.
Rationale for Status:	Will provide relevant information regarding mine activities if activated.

**Surveillance Network Program (SNP) Station 1616-39 (permanently inactive)**

Description:	Misery Lake at Dewatering intake
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Koala Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-43 (active)**

Description:	King Pond Settling Facility, upstream of intake structure. Point of Compliance.		
Location:	538830 7161344		
Sampling Frequency:	Up to four weeks prior to Discharge	On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.	Once each year after spring break-up and once each year before fall freeze-up.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> , TPH <sup>5</sup> and BTEX <sup>6</sup>	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> .	Acute <sup>8a</sup> and chronic <sup>8b</sup> toxicity tests
Rationale for Station:	To monitor the quality of water in the KPSF prior to and during Discharge.		
Rationale for Status:	Primary Discharge Location.		

**Surveillance Network Program (SNP) Station 1616-44 (permanently inactive)**

Description:	Discharge from Koala Minewater Settling Pond
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Discharged (in the past) from the named sedimentation pond.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-45 (permanently inactive)**

Description:	Discharge from Fox Lake at Dewatering intake
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Koala Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 1616-46a (active)**

Description:	Monitor water pumped from Misery Pit into the KPSF
Location:	To be determined.
Sampling Frequency:	Weekly during pumping from Misery Pit into KPSF
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> .
Rationale for Station:	To monitor the quality of water entering the KPSF from Misery Pit.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-46b (active)**

Description:	Monitor water pumped from Misery Underground sump into the KPSF/Lynx pit
Location:	To be determined.
Sampling Frequency:	Weekly during pumping from Misery Underground into KPSF
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> .
Rationale for Station:	To monitor the quality of water entering the KPSF/Lynx pit from Misery Underground.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-47 (active)**

Description:	Desperation Pond Discharge to Carrie Stream. Point of Compliance.	
Location:	538100 7160823	
Sampling Frequency:	Up to four weeks prior to Discharge	On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> , TPH <sup>5</sup> and BTEX <sup>6</sup> .	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> ,
Rationale for Station:	To monitor the quality of water being Discharged to Carrie Stream.	
Rationale for Status:	Discharge point.	

**Surveillance Network Program (SNP) Station 1616-48 (active)**

Description:	Cujo Lake, same location as AEMP station.	
Location:	538721 7162007	
Sampling Frequency:	Every four weeks during open water.	On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.
Sampling Parameters:	Hardness	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> .
Rationale for Station:	To monitor hardness to be used in the equations shown in Part H, Condition 21(b) for the purpose of calculating hardness-based effluent quality criteria.	
Rationale for Status:	Provides necessary information for determining hardness-related EQC applicable to 1616-43 (point of compliance).	

**Surveillance Network Program (SNP) Station 1616-49 (active)**

Description:	Lynx Lake Dewatering outflow.	
Location:	To be determined.	
Sampling Frequency:	Daily during Dewatering.	On the first day of Dewatering, weekly during periods of Dewatering, and on the final day of Dewatering.



Sampling Parameters:	TSS, Turbidity, and pH.	Major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> , and dissolved metals <sup>9</sup>
Rationale for Station:	To monitor the quality of water being Discharged to Lac de Gras during Lynx Lake Dewatering.	
Rationale for Status:	Discharge point.	

**Surveillance Network Program (SNP) Station 1616-50 (active)**

Description:	Monitor water pumped from Lynx Pit into the KPSF
Location:	Lynx open pit Sump (coordinates to be determined).
Sampling Frequency:	Weekly during pumping from Lynx Pit into KPSF.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the KPSF from Lynx Pit.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-51 (active)**

Description:	Monitor water transferred from Point Lake Pit into the KPSF
Location:	Point Lake open pit Sump (coordinates to be determined).
Sampling Frequency:	Weekly during periods of transfer (pumping or trucking).
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the KPSF from Point Lake Pit.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-52a (active)**

Description:	Monitor water transferred from Point Lake WRSA Seepage Collection Sump A into the KPSF
Location:	Point Lake WRSA Seepage collection Sump A (coordinates to be determined).
Sampling Frequency:	Weekly during periods of transfer (pumping or trucking).
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the KPSF from Point Lake WRSA Seepage collection Sump A.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-52b (active)**

Description:	Monitor water transferred from Point Lake WRSA Seepage Collection Sump B into the KPSF
Location:	Point Lake WRSA Seepage collection Sump B (coordinates to be determined).
Sampling Frequency:	Weekly during periods of transfer (pumping or trucking).
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the KPSF from Point Lake WRSA Seepage collection Sump B.
Rationale for Status:	Provides relevant information relating to mine activities.

**Surveillance Network Program (SNP) Station 1616-53 (active)**

Description:	Monitor water transferred from Point Lake Pit into Lac du Sauvage		
Location:	Dewatering outflow to Lac du Sauvage (coordinates to be determined)		
Sampling Frequency:	Once prior to commencement of Dewatering.	Daily	Once on final day of Dewatering.
Sampling Parameters:	TSS, total ammonia as nitrogen, major ions <sup>1</sup> , physical parameter, and total metals <sup>3</sup> .	TSS, pH, turbidity	TSS, total ammonia as nitrogen, and major ions <sup>1</sup> .
Rationale for Station:	To monitor the quality of water Dewatered from Point Lake.		
Rationale for Status:	This provides information relevant to mine activities.		

**Surveillance Network Program (SNP) Station 1616-54 (active)**

Description:	Monitor water transferred from Point Lake Pit into Connor Lake		
Location:	Dewatering outflow to Connor Lake (coordinates to be determined)		
Sampling Frequency:	Once prior to commencement of Dewatering.	Daily	Once on final day of Dewatering.
Sampling Parameters:	TSS, total ammonia as nitrogen, and major ions <sup>1</sup> .	TSS, pH, turbidity	TSS, total ammonia as nitrogen, and major ions <sup>1</sup> .
Rationale for Station:	To monitor the quality of water Dewatered from Point Lake.		
Rationale for Status:	This provides information relevant to mine activities.		

**Surveillance Network Program (SNP) Station 0008-Pi1 (active)**

Description:	Pigeon Pond Dewatering station.		
Location:	During Dewatering sample at Dewatering Discharge point. To be determined.		
Sampling Frequency:	Once prior to commencement of Dewatering.	Daily during Dewatering.	Once on the final day of Dewatering.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>	TSS and physical parameters <sup>2</sup>	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of the water being pumped to the Long Lake Containment Facility.		
Rationale for Status:	Pigeon Pit has not yet been developed.		

**Surveillance Network Program (SNP) Station 0008-Pi2 (active)**

Description:	Pigeon Pit Minewater.		
Location:	To be determined.		
Sampling Frequency:	Weekly during Discharge.		
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>		
Rationale for Station:	To monitor the quality of water entering the Long Lake Containment Facility.		
Rationale for Status:	Pigeon Pit has not yet been developed.		

**Surveillance Network Program (SNP) Station 0008-Pi3 (permanently inactive)**

Description:	Upstream reference site. The outflow from the unnamed lake referenced as W.L. 463.7 on Figure 4.1-1 of the February 2002 Response to Information Requests.		
Location:			
Sampling Frequency:			
Sampling Parameters:			

Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 0008-Pi4 (permanently inactive)**

Description:	The inflow to Fay Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 0008-Pi5 (permanently inactive)**

Description:	Upper Exeter
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

**Surveillance Network Program (SNP) Station 0008-Pi6 (active)**

Description:	The outflow of Little Reynolds Pond.
Location:	516327 7180306
Sampling Frequency:	Once each year after spring break-up and before fall freeze-up. Sampling is to commence with Construction of the Pigeon Pit.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>

Rationale for Station:	To monitor the quality of water leaving the Pigeon Waste Rock drainage area and to detect potential contamination from the Waste Rock Storage Areas.
Rationale for Status:	Pigeon Waste Rock Storage Area has not yet been developed.

**Surveillance Network Program (SNP) Station 0008-Pi100 (active)**

Description:	Upper Exeter at site of withdrawal for the future filling of Pigeon Pit.
Location:	To be determined
Sampling Frequency:	To be determined
Sampling Parameters:	To be determined
Rationale for Station:	To monitor the quality of water entering the Pigeon Pit.
Rationale for Status:	Pigeon Pit has not yet been developed.

**Surveillance Network Program (SNP) Station 0008-Sa1 (active)**

Description:	Sable Lake Dewatering station. Site of Compliance.		
Location:	Near intake structure in Sable Lake.		
Sampling Frequency:	Once prior to commencement of Dewatering.	Daily during Dewatering.	Once on the final day of Dewatering.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>	pH, TSS and physical parameters <sup>2</sup>	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the Receiving Environment.		
Rationale for Status:	Will provide information relevant to mine activities.		

**Surveillance Network Program (SNP) Station 0008-Sa2 (active)**

Description:	Sable Pit Minewater.
Location:	To be determined.
Sampling Frequency:	Weekly during Discharge.

Sampling Parameters:	TSS, physical parameters <sup>2</sup> , major ions <sup>1</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water entering the Two Rock Sedimentation Pond.
Rationale for Status:	Sable Pit has not yet been developed.

**Surveillance Network Program (SNP) Station 0008-Sa3 (active)**

Description:	Outlet of Two Rock Sedimentation Pond. Site of Compliance.		
Location:	To be determined.		
Sampling Frequency:	When Discharging from Two Rock Sedimentation Pond.		
	Up to four weeks prior to Discharge	On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.	Once each year during first week of Discharge (after spring break-up) and once each year during the last week of Discharge (before fall freeze-up).
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> , TPH <sup>5</sup> and BTEX <sup>6</sup> .	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>	Acute <sup>8a</sup> and chronic <sup>8b</sup> toxicity tests
Rationale for Station:	To monitor the quality of effluent leaving Two Rock Sedimentation Pond prior to Discharge entering the Receiving Environment.		
Rationale for Status:	Primary (future) Discharge point.		

**Surveillance Network Program (SNP) Station 0008-Sa4 (permanently inactive)**

Description:	Ulu Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP). Also, the Seepage Survey (Part H, Condition 5) will more appropriately directly monitor Seepage from the Sable Waste Rock Storage Areas.

**Surveillance Network Program (SNP) Station 0008-Sa5 (permanently inactive)**

Description:	Inflow to Horseshoe Lake from Ulu Lake.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP). Also, the Seepage Survey (Part H, Condition 5) will more appropriately directly monitor Seepage from the Sable WRSA's.

**Surveillance Network Program (SNP) Station 0008-Sa6 (active)**

Description:	Horseshoe Lake, to be located within 200 m of the Discharge point from Two Rock Sedimentation Pond.
Location:	
Sampling Frequency:	Once each year after spring break-up and before fall freeze-up. Sampling is to commence with Construction of the Sable Pit.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> , and dissolved metals <sup>9</sup>
Rationale:	To detect impacts due to effluent Discharged from Two Rock Sedimentation Pond.
Rationale for Status:	Will provide information relevant to mine activities.

**Surveillance Network Program (SNP) Station 0008-Sa7 (permanently inactive)**

Description:	Lower Exeter Lake
Location:	
Sampling Frequency:	
Sampling Parameters:	

Rationale for Station:	To document the quality of water in the Receiving Environment.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP).

**Surveillance Network Program (SNP) Station 0008-Sa8 (active)**

Description:	Runoff from Southern Catchment Area.	
Location:	522868 7191858	
Sampling Frequency:	Sampling is to commence with Construction of the Sable Pit.	
	Once annually during the open water season.	Once every two years
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> and TPH <sup>5</sup>	TPH
Rationale for Station:	To monitor the water quality of surface runoff and Seepage leaving the site facility area.	
Rationale for Status:	Will provide information relevant to mine activities.	

**Surveillance Network Program (SNP) Station 0008-Sa9 (active)**

Description:	Horseshoe Lake, location to be determined as per Part H, Condition 30 and 31 of this Licence.	
Location:	100 m northwest of the center of the diffuser.	
Sampling Frequency:	Once each year after spring break-up and before fall freeze-up. Sampling is to commence with Construction of the Sable Pit.	
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> , nutrients <sup>4</sup> and ecological monitoring <sup>7</sup>	
Rationale for Station:	To verify the characteristics of initial mixing of effluent from Two Rock Sedimentation Pond in Horseshoe Lake close to end of pipe.	
Rationale for Status:	Will provide information relevant to mine activities.	

**Surveillance Network Program (SNP) Station 0008-Sa10 (active)**

Description:	Upstream portion of Two Rock Sedimentation Pond.
Location:	To be determined.
Sampling Frequency:	Two weeks prior to Discharge from 0008-Sa3, weekly thereafter and on the final day of Discharge from 0008-Sa3.



Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup>
Rationale for Station:	To monitor the quality of water in the upstream portion of Two Rock Sedimentation Pond during operations.
Rationale for Status:	Will provide information relevant to mine activities.

**Surveillance Network Program (SNP) Station 0008-Sa100 (active)**

Description:	Ursula Lake at site of withdrawal for the future filling of Sable Pit.
Location:	To be determined
Sampling Frequency:	To be determined
Sampling Parameters:	To be determined
Rationale for Station:	To monitor the quality of water entering the Sable Pit.
Rationale for Status:	Sable Pit has not yet been developed.

**Surveillance Network Program (SNP) Station 0008-Be1 (permanently inactive)**

Description:	Beartooth Lake Dewatering. Site of Compliance.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of water Dewatered (in the past) from Beartooth Lake.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 0008-Be2 (permanently inactive)**

Description:	Beartooth Pit Minewater.
Location:	
Sampling Frequency:	
Sampling Parameters:	

Rationale for Station:	To determine the water quality entering the Long Lake Containment Facility.
Rationale for Status:	The activity is complete and there is no future Discharge.

**Surveillance Network Program (SNP) Station 0008-Be3 (permanently inactive)**

Description:	North Panda Lake Inflow.
Location:	
Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To determine the quality of the water entering North Panda Lake. Sampling the quality of water flowing from one natural water body to another does not provide application to the mine operation.
Rationale for Status:	Water quality in North Panda Lake that is relevant to the SNP is monitored under SNP 1616-12. This is a duplicative requirement.

**Surveillance Network Program (SNP) Station 0008-Be4 (active)**

Description:	Beartooth Pit.
Location:	To be determined.
Sampling Frequency:	Twice annually – once under ice cover and once during open water, at two depths – one near the surface and one at depth.
Sampling Parameters:	TSS, major ions <sup>1</sup> , physical parameters <sup>2</sup> , total metals <sup>3</sup> and nutrients <sup>4</sup> and ecological monitoring <sup>7</sup> , and dissolved metals <sup>9</sup>
Rationale for Station:	To monitor the quality of water in Beartooth Pit during its use as a mine water retention pond and Processed Kimberlite Containment Area.
Rationale for Status:	Provides relevant information related to mine activities.

**Surveillance Network Program (SNP) Station 0008-REF1 (permanently inactive)**

Description:	Reference station to replace the Vulture site should impacts be detected at that site.
Location:	

Sampling Frequency:	
Sampling Parameters:	
Rationale for Station:	To document the quality of natural water.
Rationale for Status:	Duplicative of the purpose and sampling for the Aquatic Effects Monitoring Program (AEMP)

2. The field pH, sample temperature and ambient wind and weather conditions shall be recorded at all locations at the time of sampling.
3. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of “Standards Methods for the Examination of Water and Wastewater”, or by such other methods approved by an Analyst.
4. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.
5. The Licensee shall annually review the approved **quality assurance/quality control (QA/QC) Plan**, which shall include a list of techniques that will be used to analyze samples collected under the SNP, and revise the Plan as necessary. Proposed revisions shall be submitted to an Analyst for approval.
6. The **QA/QC Plan** referred to in Condition 5 above shall be implemented as approved by an Analyst.
7. The final location of sampling stations is subject to approval of an Inspector.
8. Additional temporary sample collection may be required at the request of an Inspector.

**Notes:**

<sup>1</sup>Major ions include the following parameters:

Hardness, alkalinity, total dissolved solids, fluoride, sulphate, chloride, nitrate-N, total calcium, total magnesium, total sodium, and total potassium.

<sup>2</sup>Physical parameters include the following measurements:

pH, temperature, conductivity, and turbidity.

<sup>3</sup>Total Metals shall include, at a minimum, the following parameters:

Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, silicon, strontium, uranium, vanadium, and zinc. Total metals shall be analyzed on an unfiltered sample.

<sup>4</sup>Nutrients include the following parameters:

Ammonia-N, nitrate-N, nitrite-N, total Kjeldhal nitrogen, orthophosphate, total phosphorus, total dissolved phosphorus, total organic carbon and total carbon, and reactive silica.

<sup>5</sup>TPH is defined as Total Petroleum Hydrocarbons.

<sup>6</sup>BTEX includes the following parameters:  
Benzene, toluene, ethylene, and xylene.

<sup>7</sup>Ecological Monitoring: field multiprobe tests at depth intervals for the following parameters:  
pH, conductivity, temperature, dissolved oxygen (mg/L and % saturation), and redox potential (Eh).

<sup>8a/b</sup>Bioassays. Bioassay samples shall be provided to an accredited bioassay laboratory for the following analyses:

- <sup>8a</sup> Acute lethality to rainbow trout (*Oncorhynchus mykiss*) (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/13 Second Edition December 2000 (with May 1997 amendments));
- <sup>8a</sup> Acute lethality to the cladoceran crustacean *Daphnia magna* (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/11 July 1990 (with May 1996 amendments));
- <sup>8b</sup> Chronic toxicity to the cladoceran crustacean *Ceriodaphnia dubia* (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/21); and
- <sup>8b</sup> Chronic toxicity to the alga *Selenastrum capricornutum* (*Pseudokirchneriella subcapitata*) (as per Environment Canada's Environmental Protection Series Biological Test Method EPS/1/RM/25).

<sup>9</sup>Dissolved metals include:

Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, silicon, strontium, uranium, vanadium, and zinc.

#### **Part B - Flow and Volume Measurement Requirements**

1. Unless otherwise noted, all flow and volume measurements shall be recorded monthly and recorded in cubic metres.
2. The monthly and annual quantities in cubic metres of freshwater obtained from Grizzly Lake, Little Lake, Falcon Lake, and Thinner Lake (Misery Camp).
3. The monthly lake levels during open water for Grizzly Lake, Little Lake, Falcon Lake, Thinner Lake (Misery Camp), Upper Panda Lake, Cell E of the Long Lake Containment Facility, and the King Pond Settling Facility.
4. The source and volume (on a monthly and annually basis in cubic metres) of recycled water used in the process plant and sampling plant.
5. The monthly and annual quantities in cubic metres of each Waste deposited to the Long Lake Containment Facility, King Pond Settling Facility, Phase 1 Tailings Containment Area, Two Rock Sedimentation Pond, Misery pit, Lynx pit, and open pits approved as Processed Kimberlite Containment Areas.

6. The monthly and annual quantities in cubic metres of any Discharges of water or Waste from the Long Lake Containment Facility, King Pond Settling Facility, Phase 1 Tailings Containment Area, Two Rock Sedimentation Pond, and Misery pit.
7. The monthly and annual quantities in cubic metres of Minewater pumped from each open pit and the underground mine and its deposit location.
8. The monthly and annual quantities in cubic meters of treated Sewage effluent Discharged from the Sewage Treatment Facilities.
9. The monthly and annual quantities in cubic metres of Sewage solids removed from the Sewage Treatment Facility.
10. The monthly and annual quantities in cubic metres of Sewage delivered to the Sewage Treatment Facilities from the Sable and Pigeon Developments.
11. The quantity of water Dewatered from Sable Lake.
12. The quantity of Minewater pumped from the Pigeon, Sable, Beartooth, Panda, Koala, and Miseryopen pits.

#### **Part C - Other Monitoring Requirements**

1. The Licensee shall measure and record the following data:
  - a) Precipitation; and
  - b) Evaporation, which is calculated from the parameters list below:
    - i. Wind speed at approximately 2 meters above the water surface;
    - ii. Wind direction;
    - iii. Air temperature at approximately 0.75 and 2 metres above the water surface;
    - iv. Relative humidity at approximately 0.75 and 2 metres above the water surface;
    - v. Water temperature at two levels;
    - vi. Net solar radiation over the water surface; and
    - vii. Water level.
2. The Licensee shall submit to the Board for approval, the location, methods and frequency for measuring and recording the meteorological data identified in Item 1 above.
3. The methods and frequency referred to in Item 1 above, shall be implemented as and when approved by the Board.
4. The quantity of ore processed shall be measured in tonnes and recorded monthly.
5. The quantity of Waste Rock and Coarse Processed Kimberlite shall be measured in tonnes and recorded monthly and their disposal locations recorded monthly.

**Part D - Reports**

1. The Licensee shall within 30 days following the month being reported, submit to the Board all data and information required by the “Surveillance Network Program” including the results of the approved **QA/QC Plan**.

DRAFT

**Annex C**

**Revisions to Water Licence #W2020L2-0004**

**(Current to XXXXXXXXXXXX, 2022)**

*List of changes made to the Water Licence since Issuance*

<b>Effective Date</b>	<b>Section and Description</b>	<b>Reference</b>
JUNE 3, 2021	Renewal of <a href="#">W2012L2-0001</a> .	Original Issuance
AUGUST 24, 2001	Schedule 2: Update to Condition 1(a) to reflect the Board's April 22, 2021 Decision on Old Camp Refund Request. See August 24, 2021 Decision Letter	Security Adjustment #1
September 30, 2021	SNP update to reflect the Board's September 30, 2021 decision on Version 3.0 of the Two Rock Outfall Report	SNP Update #1
XXXXXXXXXX	Amendment to reflect Point Lake Development.	Amendment #1



P.O. Box 32, Wekweètì, NT X0E 1W0  
Tel: 867-713-2500 Fax: 867-713-2502

#1-4905 48th Street, Yellowknife NT X1A 3S3  
Tel: 867-765-4592 Fax: 867-765-4593  
[www.wlwb.ca](http://www.wlwb.ca)

June 10, 2021

File: W2012L2-0001

Dustin Chaffee  
Arctic Canadian Diamond Company Ltd.  
900 – 606 4 Street SW  
Calgary, AB T2P 1T1

Laura Duncan, Tłı̄chq Executive Officer  
Tłı̄chq Government  
PO Box 412, 127 Donda Tili  
Behchokq, NT X0E 0Y0

Sent by e-mail

Dear Dustin Chaffee and Laura Duncan,

**Re: Ekati – Point Lake Project – Notice of Major Project Application wholly or partly in Mqwhj Gogha Dè Njı̄ tìèè**

The Wek'èezhìi Land and Water Board (Board) has received an Amendment Application for Water Licence (Licence) W2012L2-0001 from Arctic Canadian Diamond Company Ltd. (Arctic). This Application is for open pit mining of the Point Lake Kimberlite Pipe at the Ekati Diamond Mine. Pursuant to Policy Direction of the Minister of Crown-Indigenous Relations and Northern Affairs<sup>1</sup> regarding Chapter 23.4 of the Tłı̄chq Land Claims and Self-Government Agreement (Tłı̄chq Agreement), the Board is to provide notice of an Application for a “major mining project”, as defined in Chapter 23 of the Tłı̄chq Agreement.

Based on available information, it has been determined that this Application is for a “major mining project”. Should Arctic disagree with this determination, Arctic must submit evidence on or before **June 17, 2021**, to explain why. If Arctic requires more time to provide this evidence, submit a status update by this deadline.

Before the Minister of Environment and Natural Resources for the Government of the Northwest Territories (Minister) considers a licence recommended for issuance by the Board in response to this Application, both Arctic and the Tłı̄chq Government must submit evidence to the Board for the Minister’s consideration that:

---

<sup>1</sup> [Policy Direction of the Minister of Indian Affairs and Northern Development](#)



1. Arctic and the Tłıchq Government have entered into an agreement for the Project as contemplated under 23.4.1 of the Tłıchq Agreement; or
2. Pursuant to 23.4.2 of the Tłıchq Agreement, Arctic and the Tłıchq Government have agreed that negotiation of an agreement is not required, or, if required, it will be negotiated after the Minister's approval of the Licence; or
3. Best efforts were made in good faith to conclude a negotiated agreement as contemplated under 23.4.1 of the Tłıchq Agreement, as well as any evidence of why an agreement was not concluded.

This evidence shall be submitted to the Board on or before **July 8, 2021**. Should the Tłıchq Government and Arctic require more time to provide evidence that demonstrates that requirement #2 or #3 above has been satisfied, a status update including anticipated timelines must be provided to the Board on or before this deadline.

Please contact me at (867) 765-4589 with any questions or concerns regarding this letter.

Yours sincerely,



Ryan Fequet  
Executive Director, Wek'èezhii Land and Water Board

BCC: Zabey Nevitt, Senior Advisor, Sustainability & Resource Management  
Ekati Distribution List

**ARCTIC CANADIAN  
DIAMOND COMPANY LTD.**

**Arctic Canadian Diamond Company Ltd.**

900-606 4 Street SW (403) 910-1933  
Calgary, Alberta T2P 1T1 (403) 910-1934 fax

June 17, 2021

Mr. Joseph Mackenzie  
Chairperson  
Wek'èezhii Land and Water Board  
#1, 4905-48th Street  
Yellowknife, NT  
X1A 3S3

**RE: Application for Major Mining Project wholly or partly in Mowhì Gogha Dè Njttèè – Point Lake Project**

Arctic Canadian Diamond Company Ltd. (Arctic) agrees that the application for the Point Lake Project at the Ekati Diamond Mine is for a “major mining project”, as defined in Chapter 23 of the Tłıchq Agreement. Arctic held initial discussions with the Tłıchq Government on this requirement on June 17, 2021. Arctic will continue to collaborate with the Tłıchq Government and work to submit required evidence or a status update to the Board for consideration of the Minister of Environment and Natural Resources on or before July 8, 2021.

If you have any questions or comments, please contact the undersigned at (867) 446-8786 or [dustin.chaffee@ddcorp.ca](mailto:dustin.chaffee@ddcorp.ca).

Yours Sincerely,



Dustin Chaffee  
Permitting Advisor  
Arctic Canadian Diamond Company Ltd.



## Tłıchǫ Government

Box 412, Behchokǫ, NT X0E 0Y0 • Tel: (867) 392-6381 • Fax: (867) 392-6389 • [www.tlicho.ca](http://www.tlicho.ca)

August 9<sup>th</sup>, 2021

VIA EMAIL

Wek'èezhìi Land and Water Board  
1-4905 8th Street  
Yellowknife, NT X1A 3S3

Attention: Ryan Fequet, Executive Director

Dear Mr. Fequet:

**Re: Ekati – Point Lake Project – Notice of Major Project Application,**  
**File: W2012L2-0001**

Tłıchǫ Government (“TG”) writes in response to your letter of June 10, 2021. Your letter requested: (a) that Arctic Canadian Diamond Company Limited (“Arctic”) advise the Wek'èezhìi Land and Water Board (“Board”) by June 17, 2021 if it disagrees with the Board’s determination that the Point Lake Project is a “major mining project” pursuant to Chapter 23 of the Tłıchǫ Agreement and (b) that TG and Arctic write to the Board by July 8, 2021 to advise whether an agreement as contemplated by section 23.4.1 of the Tłıchǫ Agreement has been reached by TG and Arctic with respect to the Point Lake Project.

We note that, by letter dated June 17, 2021, Dustin Chaffee of Arctic wrote to the Board to confirm that Arctic “agrees that the application for the Point Lake Project at the Ekati Diamond Mine is for a ‘major mining project’, as defined in Chapter 23 of the Tłıchǫ Agreement.”

In response to the Board’s inquiry, TG can confirm that, at this time, no agreement pursuant to section 23.4.1 exists between TG and Arctic with respect to the Point Lake Project. TG and Arctic have, however, already commenced good faith engagement with respect to the Point Lake Project and intend to continue to negotiate towards a mutually-acceptable agreement. We are optimistic that an agreement or other mutually-acceptable arrangement between Tłıchǫ Government and Arctic will be finalized prior to October 28, 2021—that date being the deadline for interventions as set out in the Board’s work plan.

We will update the Board about the status of an agreement between TG and Arctic before October, 28, 2021 or upon request by the Board and we look forward to working with Arctic to advance our engagement in the interim.

In Tłıchǵ Unity,

A handwritten signature in black ink, appearing to read 'Zabey Nevitt', written in a cursive style.

Zabey Nevitt

Director, Planning and Partnerships

August 11, 2021

Mr. Joseph Mackenzie  
Chairperson  
Wek'èezhii Land and Water Board  
#1, 4905-48th Street  
Yellowknife, NT  
X1A 3S3

**RE: Application for Major Mining Project wholly or partly in Mowhì Gogha Dè Njtlèè – Point Lake Project**

Arctic Canadian Diamond Company Ltd. (Arctic) wishes to provide an update on the ongoing negotiations with the Tłıchǫ Government regarding the Point Lake Project and requirements of Chapter 23 of the Tłıchǫ Agreement. Arctic can confirm that, at this time, no agreement pursuant to Chapter 23.4.1 of the Tłıchǫ Agreement exists between Arctic and the Tłıchǫ Government. Both parties are fully engaged in good-faith negotiations to reach a mutually acceptable agreement. Arctic will continue to collaborate with the Tłıchǫ Government and work to submit required evidence or a status update to the Board for consideration of the Minister of Environment and Natural Resources on or before October 28, 2021, or upon request from the Board.

If you have any questions or comments, please contact the undersigned at (867) 446-8786 or [dustin.chaffee@arcticcanadian.ca](mailto:dustin.chaffee@arcticcanadian.ca).

Sincerely,



Dustin Chaffee  
Regulatory Applications Manager



October 28, 2021

VIA EMAIL

Wek'èezhìi Land and Water Board  
1-4905 8th Street  
Yellowknife, NT X1A 3S3

Attention: Ryan Fequet, Executive Director

Dear Mr. Fequet:

**Re: Update on ongoing negotiations between Tłıchǰ Government and Arctic Canadian Diamond Company re Ekati Mine – Point Lake Project, File: W2012L2-0001**

Tłıchǰ Government (“TG”) and Arctic Canadian Diamond Company Ltd. (“Arctic”) write further to the June 10, 2021 letter from the Wek'èezhìi Land and Water Board (“Board”) with respect to the Point Lake Project at the Ekati Mine (the “Project”) and the status of any agreement between TG and Arctic with respect to the Project as contemplated by section 23.4.1 of the Tłıchǰ Agreement.

TG and Arctic have been fully engaged in negotiations towards an agreement with respect to the Project for the last several months. While those negotiations are ongoing, both TG and Arctic are optimistic that a mutually-acceptable agreement will be achieved prior to the conclusion of the Board's regulatory review of the Project.

TG and Arctic will update the Board about the status of any agreement between them prior to the conclusion of the Board's regulatory review of the Project or earlier upon request by the Board. We are happy to respond to any questions, or provide any additional information, that the Board would find of assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura Duncan".

Laura Duncan  
Tłıchǰ Executive Officer, Tłıchǰ Government

A handwritten signature in black ink, appearing to read "R. Moore". The signature is fluid and cursive, with a large initial "R" and a trailing "Moore".

Rory Moore  
Interim President, Arctic Canadian Diamond Company Ltd.



November 19, 2021

VIA EMAIL

Wek'èezhii Land and Water Board  
1-4905 8th Street  
Yellowknife, NT X1A 3S3

Attention: Ryan Fequet, Executive Director

Dear Mr. Fequet:

**Re: Update on ongoing negotiations between Tłı̨chǰ Government and Arctic Canadian Diamond Company re Ekati – Point Lake Project, File: W2012L2-0001**

Tłı̨chǰ Government and Arctic Canadian Diamond Company Ltd. (“Arctic”) write further to the June 10, 2021 letter from the Wek'èezhii Land and Water Board (“Board”) and our joint letter of October 28, 2021 with respect to the Point Lake Project at the Ekati Mine (the “Project”) and the status of any agreement between Tłı̨chǰ Government and Arctic with respect to the Project as contemplated by section 23.4.1 of the Tłı̨chǰ Agreement.

We are pleased to inform the Board that Tłı̨chǰ Government and Arctic have concluded a binding term sheet that contains our mutual agreements and understandings with respect to the Project. Our binding term sheet is detailed in nature and we expect that the negotiation and drafting of a definitive agreement between Tłı̨chǰ Government and Arctic will be straightforward and completed in short order. We confirm that, in the view of the Parties, the agreement reached satisfies the requirements of section 23.4.1 of the Tłı̨chǰ Agreement.

We thank the Board for its assistance in this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Laura Duncan".

---

Laura Duncan  
Tłı̨chǰ Executive Officer  
Tłı̨chǰ Government

A handwritten signature in black ink, appearing to read "Rory Moore".

---

Rory Moore  
Interim President  
Arctic Canadian Diamond Company Ltd.