



August 4, 2023

Mason Mantla Chair  
Wek'èezhii Land and Water Board  
#1, 4905 – 48th Street Yellowknife, NT  
X1A 3S3

RE: W2022L2-0001 - Ekati - Licence Renewal Application – Draft Water Licence Review

Dear Mr. Mantla:

Please see attached for Arctic Canadian Diamond Company's (Arctic Canadian) Closing Arguments for the Water Licence W2022L2-0001 renewal application to the Wek'èezhii Land and Water Board.

If you have any questions or concerns, please contact the undersigned 403-910-1933 ext. 2402 or [glen.swanson@burgundydiamonds.com](mailto:glen.swanson@burgundydiamonds.com).

Sincerely,

Glen Swanson  
Manager, Regulatory and Environment  
Arctic Canadian Diamond Company Ltd., a Burgundy Diamond Mines Ltd. Company



**BURGUNDY**  
DIAMOND MINES

## **EKATI DIAMOND MINE**

**Water Licence W2022L2-0001 Renewal – Closing Argument**



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## LIST OF ABBREVIATIONS

AEMP	Aquatic Effects Monitoring Program
ARF	Aquatic Response Framework
AQMP	Air Quality Monitoring Program
CMMP	Caribou Compensatory Mitigation Plan
CRMP	Caribou Road Mitigation Plan
CRP	Closure and Reclamation Plan
DFO	Fisheries and Oceans Canada
DKFN	Deninu Kue First Nation
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada
ENR	Environment and Natural Resources [for the GNWT]
EQC	Effluent Quality Criteria
FRMG	Fort Resolution Métis Government
GNWT	Government of the Northwest Territories
IBA	Impact Benefit Agreement
ICRP	Interim Closure and Reclamation Plan
IEMA	Independent Environmental Monitoring Agency
KPSF	King Pond Settling Facility
LKDFN	Łutsel K'e Dene First Nation
LUP	Land Use Permit
MDMER	Metal and Diamond Mining Effluent Regulations

MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	<i>Mackenzie Valley Resources Management Act</i>
NAG	Net-Acid Generation
NPRI	National Pollutant Release Inventory
NSMA	North Slave Métis Alliance
NWT	Northwest Territories
SCP	Spill Contingency Plan
SFE	Shake Flask Extraction
SNP	Surveillance Network Program
TG	Tłı̨chų Government
TKEG	Traditional Knowledge Elders Group
TQO	Terrestrial Quality Objectives
TSS	Total Suspended Solids
WEMP	Wildlife Effects Monitoring Plan
WL	Water Licence
WLWB	Wek'èezhii Land and Water Board
WMMP	Wildlife Management and Monitoring Plan
WMP	Waste Management Plan
WRSA	Waste Rock Storage Area

# 1. INTRODUCTION

On November 1, 2022, Arctic Canadian Diamond Company (“**Arctic Canadian**”) submitted an application to the WLWB requesting a Water Licence Renewal for its mining operations at the Ekati Diamond Mine. Mining operations are currently scheduled to continue until at least 2029, but efforts are continually underway to find ways to extending mine life. In addition to work on the Point Lake Project, Arctic Canadian is investigating concepts that would further extend mining operations.

## a. Arctic Canadian and the Future of the Ekati Diamond Mine

Arctic Canadian is a Canadian mining company and one of the world’s largest producers and suppliers of premium rough diamond assortments to the global market. Arctic Canadian was formed for the purpose of purchasing and continuing operation of the Ekati Diamond Mine. Arctic Canadian took ownership of the Ekati Mine in February 2021 following a court-supervised insolvency process. Over the previous two years, Arctic Canadian resumed mining operations at the Ekati Mine despite the complexities of COVID-19 and related public health restrictions. Recently, Arctic Canadian entered into an agreement for the sale of 100 per cent of Arctic Canadian’s assets to Burgundy Diamond Mines Limited.

Arctic Canadian is confident that continuing operations at the Ekati Diamond Mine provides diffuse economic benefits to the NWT and its communities. The Ekati Diamond Mine provides employment opportunities for Indigenous peoples and members of neighbouring communities, including through the hiring of local contractors to provide a variety of services at or related to mining. Taxes and royalties from the Ekati Diamond Mine are a significant contributor to the revenue of the NWT. Further, economic benefits are distributed broadly to local Indigenous communities, including through existing IBAs.

Arctic Canadian successfully restarted mining operations at the Ekati Diamond Mine over the preceding two years and has progressed towards securing a future for the mine. In that time, Arctic Canadian has:

- fully resumed operations at the Ekati Diamond Mine;
- re-hired northern and northern Indigenous employees;
- met with Indigenous Governments and Organizations at a leadership level and initiated engagement processes for the Point Lake Project as well as Ekati Diamond Mine operations;
- carried out successful discussions with the TG under S.23.4.1 of the Tłı̨chǫ Agreement;
- provided royalty and IBA payments;
- established a new and progressive mine development plan that aligns with the current environmental, social and economic climate; and
- developed and proceeded with the Point Lake Project to secure future profitability at the Ekati Diamond Mine.

Arctic Canadian is committed to adhering to all laws and authorizations, and to working collaboratively with others to operate the Ekati Diamond Mine in a safe and productive way that effectively manages environmental risks and provides broad-based socio-economic benefits.

Arctic Canadian is fully committed to maintaining and advancing the principles and practices of sustainable development, while making best use of the resources mined. This commitment includes respect for the natural and social environments, sharing economic benefits, and diligently reducing adverse effects or outcomes resulting from its work. Arctic Canadian's assets maintain a high standard of environmental stewardship throughout all project phases. The Ekati Diamond Mine meets its environmental protection commitments through a comprehensive health, safety and environmental management system.

## **b. Continuing Operations at the Ekati Diamond Mine**

The mine operating plan that is the basis for this Renewal Application includes the following primary activities:

- Continued open pit mining at the Sable Open Pit;
- Continued underground mining at the Misery Underground;
- Development and open pit mining at the Point Lake Open Pit;
- Continued use of the process plant, camps and other existing infrastructure;
- Trial of underwater remote mining at the Lynx Open Pit; and
- Progressive reclamation.

Arctic Canadian's goal is to secure a Licence that establishes consistent and predictable operating requirements that facilitate both the execution of planned operations and the planning of future developments. Arctic Canadian wants to avoid scenarios where regulatory uncertainty risk an earlier-than-necessary shutdown of the mine. Specifically:

- Secure a term that provides certainty for the extension of the operating life of the mine;
- Provide for required future Water Uses;
- Establish a mechanism in the Licence for evaluating Waste Rock Storage Area Seepage;
- Implement changes to the SNP and Licence to enable operation aligned with current needs;
- Address the initiative to integrate standard conditions into this Licence; and
- Address WLWB decisions on Arctic Canadian's 2021 Geotechnical Inspection Report.

Arctic Canadian closely reviewed and considered all feedback it has received through the course of this renewal process, including approximately 60 recommendations delivered by interveners. The primary issues raised by interveners included the length of the licence term, the seepage response framework, and the adoption of standard terms into the licence. These issues are addressed below in this Closing Argument. Arctic Canadian has worked hard to address issues raised by each of the interveners, and appreciates comments in the GNWT's Closing Arguments, for example, that Arctic Canadian has resolved many of the recommendations and arguments from its intervention. It reflects a productive use of this process where concerns are addressed and compromises made in furtherance of responsible economic activity in the areas under the oversight of the WLWB.

Accordingly, the WLWB should grant the renewed Water Licence for the Ekati Diamond Mine.

## c. The Process Before the WLWB

Arctic Canadian currently holds a number of permits issued under the *Mackenzie Valley Resource Management Act* which cover mining development activities associated with the Ekati Diamond Mine. These permits are in good standing. A Type A Water Licence renewal will allow Arctic Canadian to carry out continuing operations at the Ekati Diamond Mine.

On November 1, 2022, Arctic Canadian submitted its application for this renewed Water Licence ([Link](#)). On November 7, 2022, Arctic Canadian submitted additional information as requested, and on November 8, 2022, the Application Package was deemed complete by the WLWB. On November 21, 2022, the WLWB delivered a work plan. The renewal application included details on the pre-Application Engagement and on-going engagement, along with an engagement log for the pre-application period ([Link](#)).

On February 22, 2023, the WLWB released its preliminary screening determination on the aspects of the renewal application that had not been deemed exempt ([Link](#)), in which it determined that those activities did not need to be referred to an EA because they were found to not have a significant adverse impact on the environment or be a cause of public concern.

The WLWB facilitated a technical session with Arctic Canadian and certain other interested parties from March 27-29, 2023 (see Arctic Canadian's presentations: [Link](#)). On April 13, 2023 Arctic Canadian provided responses to information requests from the Technical Session ([Link](#)).

A public hearing was carried out before the WLWB from June 13-15, 2023. Arctic Canadian responded to undertakings from the public hearing by June 23, 2023 ([Link](#)). On June 30, 2023, the WLWB circulated a draft Water Licence for public review ([Link](#)). On July 14, 2023, reviewers provided their comments on the draft Water Licence. On July 21, 2023, Arctic Canadian provided its comments and its responses to reviewer comments on the draft Water Licence.

## d. Organization of this Closing Argument

This Closing Argument is organized to address areas that are important to the Water Licence renewal application, particularly issues over which there has been commentary by Interveners and other engagement partners. In this document Arctic Canadian intends to provide an overview of these issues and will refer to documents previously submitted to the WLWB, including hearing transcripts, Intervener submissions and reviewer comments on the draft licence along with Arctic Canadian's accompanying responses.

This Closing Argument addresses the following issues:

- Licence term;
- Water uses and quantity;
- TQOs and Seepage;
- pH Limits;
- AEMP;
- SNP;
- Closure issues; and



- Standard and other conditions.

Arctic Canadian has reviewed the Intervener Closing Arguments that were submitted in advance of this Closing Argument. Arctic Canadian's responses to issues raised by each Intervener are set out throughout.

Arctic Canadian would like to thank the WLWB, its staff, and all of the Interveners in the Ekati Diamond Mine Water Licence renewal process for their efforts to review and provide recommendations to improve the Project. Arctic Canadian looks forward to continuing its engagement with Elders, communities, regulatory agencies, and WLWB staff, as Arctic Canadian moves forward with operations at Ekati Diamond Mine.

## 2. LICENCE TERM

Arctic Canadian has requested a licence term of ten years to ensure that Arctic Canadian has confidence that it can continue already approved mine activity with some degree of flexibility in respect of the length of operations.

A 'buffer' period is necessary beyond the current operating schedule to 2029 in order to provide Arctic Canadian with a degree of operational flexibility. Mine scheduling is not precise. An array of things can cause mining to progress more slowly than anticipated. There is a possibility of temporary slowdowns due to weather, staffing, economic changes or permitting requirements. Arctic Canadian is also alive to the possibility that additional kimberlite may be identified over the remaining span of mining operations that could extend the timeline for mining to occur. While mine operations are scheduled to conclude by 2029, this not set in stone.

Arctic Canadian desires to avoid a scenario where an additional licence renewal will be required to continue ongoing operations for an additional year or two of small-scale mining. Realistically, the time and cost of a further licence renewal process for such a sort time period at the end of mine life may ultimately be cost prohibitive. Arctic Canadian does not want to end mining operations earlier than it otherwise would only because of the expiry of the licence and the need for a short-term renewal. Put simply, an unnecessarily early licence renewal or amendment process may cause early closure of the Ekati Diamond Mine.

There is no material environmental risk to providing the requested 10-year term. Activities at the Ekati Diamond Mine will need to comply with the terms of the Licence. If there were material changes to operations, they would likely require a Licence amendment or other permitting processes in order for them to occur. A new Licence is not required for active reclamation activities to commence.

Arctic Canadian acknowledges that some interveners have recommended shorter licence term, but notes that limited rationale has been provided by intervenors for a shorter licence term. Arctic Canadian also notes that the TG has withdrawn its recommendation for a seven or eight year term in its Closing Argument and recommends Arctic Canadian's proposed ten year term.

Some intervenors have suggested at times that the term of the Licence ought to correspond to the planned cessation of operations. However, there is no principled or practical reason for these to

coincide. A new Licence is not needed immediately at cessation of mining activity. Indeed, IEMA acknowledged that there was no practical reasons for a new licence to be put into place immediately upon mine closure by agreeing that “[t]here is no doubt that closure and -- closure and reclamation activities could proceed under -- through an -- an approved final closure and reclamation plan regardless of the scope of -- of the water licence”.<sup>1</sup> In their Closing Arguments, the TG also agreed that new Licence conditions would not require obvious changes as the WLWB could regulate any issues through the closure and reclamation plan. There are likely no active reclamation activities that could not be undertaken under the current Licence with an approved closure plan. As a result, there is no compelling rationale that the Licence expiry must be tied to the date of anticipated closing.

### **3. WATER USE**

#### **a. Water volumes**

Arctic Canadian has proposed a Licence that contains the total withdrawal volumes per source lake authorized in the Licence. More detailed annual withdrawal rates are then approved by the WLWB through back-flooding or drawdown plans. As a result, Arctic Canadian retains operational flexibility while ensuring that annual water uses are subject to WLWB oversight. To address concerns expressed by GNWT and DFO, Arctic Canadian has agreed to a condition in the Licence restricting instantaneous outflow to 10% unless otherwise approved by the WLWB, consistent with scientific evidence that this level of outflow is not unlikely to have a detectable impact on ecosystems that support commercial, recreational or Aboriginal fisheries.

Arctic Canadian’s need for some degree of flexibility arises because water may be needed to support process plant operations during some years. Further, Arctic Canadian is currently unable to proceed with progressive reclamation of open pits and water may be required to support the trial of underwater remote mining at Lynx Open Pit.

There is no material environmental risk nor regulatory gap caused by Arctic Canadian’s proposal. In fact, variability in withdrawal rates reduces environmental risk to the source lakes by allowing Arctic Canadian to respond to annual variations in runoff conditions, such that lower withdrawal volumes can be implemented in low runoff years. The proposed volumes have been assessed/screened pursuant to Part 5 of the MVRMA. Open pit back-flooding volumes from Upper Exeter Lake, Ursula Lake and Lac du Sauvage are in the ICRP. No pumping can occur without an approved Back-Flooding Plan or Drawdown Plan.

In the DFO’s intervention materials, DFO indicated a concern about the extraction of water from source lakes for the purpose of back flooding open pits at the Ekati Mine Site. As indicated in their Closing Argument, DFO and Arctic Canadian were able agree on a resolution to this issue which resulted in the inclusion of Part D, Condition 6 in the Licence which limited water withdrawal from source lakes to 10% of instantaneous flow unless approved by the WLWB. This has also been accepted by GNWT as an appropriate solution, as stated in its Closing Argument.

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<sup>1</sup> Public Hearing Day 3 Transcript (June 15, 2023), at 79.

## **b. Process Plant Water**

The ability to use freshwater for process plant operations is a fundamental operational need for Arctic Canadian. If water is not available for process plant operations, it threatens the operation of the Ekati Diamond Mine. The Licence needs to contain allowances for a sufficient and safe amount of water to be available for process plant operations.

As a result of this need, additional language has been proposed and adopted in the draft Licence to permit the use of water from Upper Exeter Lake for process plant operations to augment water supply in the Long Lake Containment Facility on a contingency basis to address water shortfalls due the deposit of kimberlite in the Panda/Koala pits. IEMA continues to propose additional language to Schedule D, Condition 3. The language proposed by IEMA is not necessary. It also undermines the purpose this water allowance has been added into the Licence. Requiring a lengthy notice and impact summary for small water uses to maintain ongoing processing plant operations will not provide Arctic Canadian with the operational flexibility it needs to ensure continuing operations. It may also likely result in Arctic Canadian seeking unnecessary approval for unnecessary uses only out of caution.

Relatedly, the WLWB proposed a revised condition to reflect the water use considered under Part 5 of the MVRMA in Part D, Condition 7 as follows: “[u]se of water from Upper Exeter Lake in accordance with Part D, Condition 4 and for the purpose of contingency water use at the process plant, may not exceed 4,000,000 m<sup>3</sup>”.

Arctic Canadian believes the following addition removes ambiguity: “[u]se of water from Upper Exeter Lake in accordance with Part D, Condition 4 and for the purpose of contingency water use at the process plant, may not exceed 4,000,000 m<sup>3</sup>, unless otherwise approved by the Board”.

The WLWB proposes the following wording for Part D, Condition 8: “[e]ach year, prior to the [effective date of licence], and in advance of any contingency Water use from Upper Exeter Lake, the Licensee shall provide a report to the Board and the Inspector on the annual volume of water needed for this purpose and outline the criteria and conditions that led to the determination of this volume.”

Arctic Canadian will not be in a position to predict a contingency water use until spring or early summer of each year. The determination is based on actual runoff conditions for the coming summer and fall seasons. Therefore, it is not reasonable that a contingency use would be required to be predicted by the anniversary date of the Licence, which is anticipated to be October. Arctic Canadian recommends that the phrase “prior to the [effective date of licence]” be omitted which does not lessen the effectiveness of the Condition because of the requirement that a report be provided in advance of a contingency water use.

## **4. SEEPAGE AND TERRESTRIAL QUALITY OBJECTIVES**

During this renewal process, there have been lengthy discussions of the oversight processes for seepage from the WRSA. Arctic Canadian has proposed that the Licence require a WRSA Seepage Evaluation Framework to address seepage concerns, that would include and the use of terrestrial quality objectives (“TQO”) to assess seepage for potential effects in the terrestrial environment.

Arctic Canadian notes the comments in the Closing Argument of GNWT that Arctic Canadian and GNWT have resolved concerns about the proposed Seepage Response Framework, including through Undertaking 6 and Undertaking 15. However, Arctic Canadian intends to continue discussions with GNWT about applying the EQC at the toe of the WRSA unless or until demonstrated that seepage encounters receiving waters elsewhere.

Waste rock seepage that is not identified as reaching a water body, should not have to meet EQC which are designed to protect aquatic environments. Rather, criteria ought to be applied that are specific to concerns with terrestrial seepage. As a result, TQOs are appropriate for potential seeps that enter terrestrial environments. Arctic Canadian interprets GNWT's resolution of its recommendations 8,9 and 10 as accepting in principle Arctic Canadian's proposal to use TQOs to screen the discharge of such waste.

As indicated in the Closing Argument of the TG, the TQO can be set out in a plan or framework approved by the WLWB, such as a WRSA Seepage Evaluation Framework. The precise criteria need not, and ought not, be specified in the body of the Licence itself but are within the jurisdiction of the WLWB.

Arctic Canadian has addressed recommendations that were made on the wording for the schedule conditions requiring a Seepage Response Framework. The TQOs in the Framework can also be adjusted by the WLWB to remain current with new information and science. This approach is similar to the existing Aquatic Response Framework that is already in place.

Arctic Canadian agrees to some aspects of the section 3 of the TG's Closing Argument to the extent that Arctic Canadian agrees that the Seepage Response Framework is the appropriate place to describe any monitoring, management or mitigation related to waste rock storage and seepage. This framework is intended to describe the criteria against which seepage will be screened and the process for responding to exceedances of tiered action levels. Arctic Canadian believes that public review of the Seepage Response Framework is the appropriate place to discuss TG's concerns in section 3 of their Closing Argument. No changes to the conditions related to the seepage response framework set out in the Licence are required.

Arctic Canadian notes comments in section 4.2 of TG's Closing Argument related to the collection of seepage from the Point Lake overburden stockpile, specifically TG's understanding that seepage from the Point Lake overburden stockpile is to be collected. Collection of seepage from the WRSA (i.e., the rock pile) is part of the Point Lake Project Description per the Board's Preliminary Screening of the Project because of the presence of metasediment waste rock. Collection of seepage from the overburden stockpile is not part of the Project Description because the risk relates to sediment transport which is readily identifiable and mitigable on an if-required basis. Arctic Canadian has provided, through the Board's review of the Point Lake Project, geochemical and other information confirming negligible water quality risk other than inadvertent sediment transport. Monitoring of seepage from the overburden stockpile will take place under both the Water Licence (WROMP) and the MDMER, which will provide appropriate monitoring information to identify issues and prompt action if necessary. Arctic Canadian notes ECCC, under the MDMER, could require the collection of seepage from the overburden stockpile if warranted. At this time, ECCC does not require the collection of seepage from the overburden stockpile. Arctic Canadian's submissions on the Point Lake Project have described the environmentally intrusive and disruptive nature of constructing a seepage collection system, which would include new road and ditch construction in the caribou movement area between Point Lake and the esker at Thinner Lake. Because of the low and readily mitigable risk and the environmentally

intrusive nature of ditch construction and operation, the Point Lake WRSA Design Plan that is currently undergoing Board review does not include design of a seepage collection system for the overburden stockpile (as it does for the WRSA itself). This is consistent with Arctic Canadian's project description and Arctic Canadian's recommendations to not construct a seepage collection system for the overburden stockpile unless demonstrated necessary. The Board review of the Point Lake WRSA Design Plan (i.e., separate from this Renewal process) is the appropriate process to address, to the extent required, this question. Arctic Canadian finds no need to add or alter conditions in the WLWB's draft Licence to address the questions raised by TG in this regard.

## 5. PH LIMITS

There has been extensive debate throughout these proceedings about the allowable pH limit that may be contained in the Licence. The essential question is whether the Licence can allow a pH lower than six given that the natural surface flows on tundra soil can have a pH lower than six.<sup>2</sup> The central issue is that certain interpretations of the MDMER lead to absurd results because they impose criteria intended for environmental protection that are inconsistent with the actual environment being protected around the Ekati Diamond Mine.

At the starting point, a pH limit of five is already an existing Condition of the Licence for surface runoff (current Condition H.15(e)). It has been for some time. The existing condition acknowledges that natural soil conditions can have a pH lower than six. This characteristic of the natural soils, for example, is the reason for the WROMP requirement of a basal layer of construction rock at WRSA's containing metasediment.

Arctic Canadian shares the well articulated concerns in the TG's Closing Argument that the WLWB ought not to arbitrarily apply general standards that it knows are not consistent with statutory objectives and available evidence. Arctic Canadian agrees with the TG's position that the WLWB may issue a Licence that permits a pH lower than six based on the Tłı̨ch̓ Agreement. Arctic Canadian also agrees that the WLWB must "take the evidentiary record and the general factual matrix that bears on its decision into account, and its decision must be reasonable in light of them" as set out in the Supreme Court of Canada's decision in *Canada (Minister of Citizenship and Immigration) v. Vavilov*.<sup>3</sup>

The WLWB has presented two options to address the pH limit on wastewater discharge in the Licence, as follows:

Option A:

- i. Until the mine becomes a Recognized Closed Mine under the Metal and Diamond Mine Effluent Regulations, any Wastewater or Waste Discharged to Receiving Water shall have a pH between 6 and 9; or
- ii. If the mine is a recognized Closed Mine under the Metal and Diamond Mine Effluent Regulations, all Wastewater or Waste Discharged to Receiving Water shall have a pH between 6 and 9 unless it can be demonstrated that a pH outside this range was not caused by mine activities.

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<sup>2</sup> See: Public Hearing Day 1 Transcript (June 13, 2023) at 135-136 (Arctic Canadian), 147 (GNWT); Public Hearing Day 2 Transcript (June 14, 2023) at 110-111 (TG); Public Hearing Day 3 Transcript (June 15, 2023) at 134 (ECCC).

<sup>3</sup> *Canada (Minister of Citizenship and Immigration) v. Vavilov*, 2019 SCC 65 at para 126.

Option B:

Any Wastewater or Waste from the Project that enters Receiving Water shall have a pH between 6.0 and 9.0, or between 5 and 9 where it can be demonstrated to the satisfaction of the Inspector that pH below 6.0 is caused by the natural environment. except surface runoff which shall have a pH between 5.0 and 9.0;

Arctic Canadian also proposed what it views as a more refined version of "Option B":

Any Wastewater or Waste from the Project that enters the Receiving Environment shall have a pH between 6.0 and 9.0, provided that in light of the fact that the background pH of the Receiving Environment can naturally range below 6.0, where tests of Wastewater or Waste from the Project indicate a pH between 5.0 and 9.0, the Wastewater or Waste may enter the Receiving Environment where the Licensee demonstrates to the satisfaction of the Inspector that any test results under 6.0 pH were not caused by mine activities or were caused by the background pH in the Receiving Environment.

The GNWT has proposed the following language, which concludes with additional language from "Option B" above:

"Any Wastewater or Waste from the Project that enters Receiving Water shall have a pH between 6.0 and 9.0, or between 5 and 9 where it can be demonstrated to the satisfaction of the Inspector that pH below 6.0 is caused by the natural environment and not by surface runoff emanating from mine infrastructure."

Arctic Canadian strongly recommends its proposed language. Alternatively, Option B or the GNWT's modified Option B are strongly preferred to Option A. Arctic Canadian would also be satisfied with the retention of the existing Condition in the existing Licence (Part H Condition 15(e)).

Arctic Canadian also recommends use of the word "Effluent" in this condition because this is a defined term in the Licence and better aligns with MDMER, as reflected in "option B" as follows: "[a]ny Effluent from the Project that enters Receiving Water shall have a pH between 6.0 and 9.0, or between 5 and 9 where it can be demonstrated to the satisfaction of the Inspector that pH below 6.0 is caused by the natural environment."

The concern originally expressed by the GNWT is that section 27(5) of the *Waters Act*, SNWT 2014 c. 18 and s. 4(1)(b) of the MDMER may not permit the Licence to allow a pH under six. Section 27(5) of the *Waters Act* provides that "the Board may not include in the licence conditions relating to the deposit of waste in those waters that are less stringent than" the MDMER. Section 4(1)(b) of the MDMER provides that "the owner or operator of a mine is authorized to deposit, or to permit the deposit of, an effluent containing any deleterious substance [...] if the pH of the effluent is equal to or greater than 6.0 but is not greater than 9.5.

A liberal and purposive interpretation of the MDMER favours an interpretation that is sensitive to the actual environment potentially affected. There are a number of interpretations that can be given to the above provisions that allow the WLWB to escape the absurdity of imposing a pH limit inconsistent with the natural environment:

- There is a fundamental difference between surface run-off (whether effluent, waste, or wastewater) itself and the results of testing of such surface run-off. The purpose of the MDMER is to ensure that the effluent itself is within a certain pH range. That is different from testing intended to measure the pH range. A licence condition can permit test results outside of the 6 to 9.5 pH range while still being compliant with the requirement that effluent have a pH within that range if it can be demonstrated that the test results have been influenced by interaction with the natural environment, subsequent to the original point of discharge. In other words, the effluent originating from the mine can be within the pH range required by the MDMER even if the results of tests conducted on downstream waters are not within that range.
- The definitions of “Effluent” under the MDMER and “Waste” in the Draft Licence are both intended and drafted to capture non-natural alterations to the environment. Effluent in the MDMER is defined as “seepage or surface runoff containing any deleterious substance [...]”. Similarly, “Waste” is defined (by reference in the Draft Licence to the definition in the Waters Act) as water containing “a substance” that “degrades” the water such that it would be detrimental to its use or that has been “subjected to treatment”. In either case, the natural environment does not itself generate surface run-off in the form of “effluent” or “waste”, even if the natural environment reflects a pH of less than 6 or more than 9.5.
- Even if a substance or surface run-off discharged from mining operations is outside the pH range of 6 to 9.5 set out in the MDMER, the effluent may still not be deleterious to the receiving environment. That is the case here, in which the natural environment may be below 6 pH, and hence discharge that is in the same pH range as the receiving environment is not inherently deleterious.
- The words “less stringent” in the *Waters Act* imply a reference to statutory purpose. If a Licence permits a pH less than 6 for the deposit of waste, it is not “less stringent” than requirements in the MDMER because both would effectively allow the same range of human intervention in the natural or safe pH. In other words, a pH of 5 is not less stringent because it imposes the same effective obligation on the mine operator not to interfere with the natural environment.
- The words “deposit of waste” implies human activity. If the waste has a pH lower than six because of the effects of the natural environment without human intervention, there has been no true “deposit”.
- Option A does not address Arctic Canadian’s concern as it would not come into effect until mine closure which will not be for many years. It does not address the risk that an unreasonable pH requirement could cause a mine shutdown in the meantime. There is no compelling reason to eliminate the existing acknowledgement of natural soil characteristics by replacing the existing condition with Option A. This is an unnecessary administrative intrusion that creates a substantive risk of non-compliance with significant negative outcomes for all parties.

Arctic Canadian highlights the concerns and questions raised at the Public Hearing by the Tłı̨cẖ Government regarding application of the MDMER and whether a Licence Condition with a lower pH limit of 6 could lead to significant disruption of mine operations. Arctic Canadian highlights that DKFN (comment #12) and IEMA (comment #18) support Arctic Canadian’s recommendation that the Licence acknowledge that natural conditions may affect pH.

## 6. SNP

Arctic Canadian has proposed that certain redundant and ineffective SNP stations be closed or altered.

The WLWB has added revised language to SNP Station 1616-46a and SNP Station 1616-46b. The prescriptive wording added to the sampling frequency component of this station does not achieve the intended outcome discussed during the technical sessions. There are numerous complexities related to collecting a sample representative of water that is discharged to surface particularly in the winter months when water volumes are small. Arctic Canadian would suggest that adding a nominal minimum volume of 10,000 m<sup>3</sup> (equivalent to roughly 1% of the capacity of King Pond) to the sampling frequency would allow for an appropriate balance between collecting valuable data as it relates to water quality in King Pond and Sampling Effort.

WLWB has proposed new SNP Station 1616-100 and SNP Station 1616-101. These stations are not necessary nor useful. Fresh water use for the filling of Lynx pit and Point Lake would require a back flooding plan be submitted to the Board for approval, which includes monitoring requirements and mitigations. The addition of an SNP station would create redundant or duplicate sampling requirements for freshwater use. Arctic Canadian suggested removal of these SNP stations and that freshwater use for pit filling be monitored and reported on through the Back Flooding Plans as described in the Water Licence.

WLWB has proposed new SNP Station 0008-Pi101. Arctic Canadian does not object to the creation of proposed SNP Station 0008-Pi101 if SNP Station 0008-Pi100 is removed from the Licence. Should the WLWB consider it appropriate to retain station SNP Station 0008-Pi100, the rationale ought to be revised to “[t]o monitor the quantity of water being used from Exeter Lake.” Which would allow station SNP Station 0008-Pi100 to require samples for either potential freshwater use, and station SNP Station 0008-Pi101 can be deleted from the Licence. Creating a station per potential water use rather than per location creates unnecessary confusion and complication.

IEMA has argued in its Closing Argument that an AEMP station is not a satisfactory replacement for SNP Station 1616-13. Arctic Canadian disagrees with IEMA’s recommendation to retain SNP Station 1616-13, given that it is a duplication of the AEMP sampling requirements at the same location. The Agency is correct that EQC’s are a valuable tool to ensure compliance at Discharge points, however that consideration is irrelevant when considering station 1616-13. As described in the Licence, EQCs apply at different locations relevant to Discharge of waste and wastewater. Station 1616-13 is not a Discharge point as such is not compared to EQCs. The AEMP and ARF are designed to monitor for and respond to changes in the aquatic receiving environment and as such it is the appropriate program for the continuation of water quality monitoring in the Panda Diversion Channel.

The WLWB has proposed to add Arctic Canadian’s proposed Part H, Condition 22. However, Arctic Canadian notes that SNP Station 1616-48 ought to be removed from this condition as it is not a discharge location as such it does not belong in this condition which relates to discharge. Arctic Canadian acknowledges that hardness at this station is used to calculate EQCs and the sampling frequency of this station provides sufficient availability of hardness data to initiate or resume pumping.



## 7. AEMP

### a. AEMP Objectives

Based on discussions at the Technical Session, WLWB staff have expressed that “Receiving Waters” is to now replace the previous use of “Receiving Environment” in most cases, including for the AEMP. Consequently, the WLWB has proposed two alternatives for the following condition in Part J, Condition 1 in the Licence:

Option 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 Water;
- 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 Water;
- c) To assess the efficacy of mitigation measures that are used to minimize the effects of the Project on the Receiving Water; and
- d) To identify the need for additional mitigation measures to reduce or eliminate Project-related effects.

OR

Option 2: The Licensee shall design and implement an Aquatic Effects Monitoring Program (AEMP) in accordance with the MVLWB/GNWT Guidelines for Aquatic Effects Monitoring Programs.

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

Arctic Canadian Recommends that Option 1 be retained in the Licence. The AEMP has adapted and evolved through time in response to observed changes in the aquatic receiving environment and to site more effectively monitor for changes specific to the monitored watersheds in the Ekati Area.

A condition that requires the AEMP to adhere to guidelines that are general in nature and more geared towards designing and development of Aquatic Effects Monitoring Programs for new developments, risks losing significant advantages associated with a monitoring program that has evolved and adapted with the mine, in favor of adhering with a more general guidance document, best suited for new operations, where there may be many more natural and operational uncertainties that have yet to be answered, requiring a broader monitoring program.

Arctic Canadian is pleased to note that GNWT has considered our rationale and agrees that retaining Option 1 is the better option, recognizing the value of the AEMP re-evaluation process, which through WLWB approval results in a monitoring program better suited to detect, understand and respond to changes in Receiving Waters at the Ekati Diamond Mine.

## **b. AEMP Renewal Term**

The WLWB's board staff proposed two options for Part J, Conditions 4 and 5:

- Under Condition 4: "The Licensee shall review and revise, as necessary, the AEMP Design Plan every [Option 1: six or Option 2: three years], or as directed by the Board..."
- Under Condition 5: "very [Option 1: six or Option 2: three years], or as directed by the Board, the Licensee shall submit an Aquatic Effects Re-Evaluation Report..."

Arctic Canadian strongly recommends a six-year term for both conditions.

Six years is a reasonable scheduled interval for the AEMP Re-evaluation and Updated Design Plan at this stage of the life of the Ekati Diamond Mine, including the proposed 3-year schedule for review of the Aquatic Response Framework. Flexibility is also provided by the possibility of adjustments to the SNP. Arctic Canadian is pleased that DKFN and GNWT have provided recommendations that support this approach.

The AEMP is highly developed and has evolved over 25 years of operations at the Ekati Diamond Mine. The re-evaluation process is a significant demand on all parties' resources. The reality is that, given the complexity and depth of the AEMP, a lengthier term is likely to result in a better AEMP because parties will have the time and resources to fully consider the details that go into developing and renewing the AEMP.

Should any special studies or investigations be required based on the results of the AEMP, they would be proposed and approved as part of an ARF Response Plan. The results of which may if appropriate inform the requirement to change the AEMP Design Plan. Considering that AEMP results are reported annually, and the company is required to report action level exceedances (and submit updated response plans if appropriate) twice per year, reviewers have three opportunities to recommend changes to the AEMP Design Plan based on the results of monitoring. This means that annually the WLWB has three opportunities to Direct Arctic Canadian to update the Design Plan should they deem it appropriate.

Additionally, an interested party could request the WLWB consider a change to the AEMP Design Plan at any time. As discussed during the technical session, the extended schedule would not make sense to implement until after the completion of the next large-bodied fish monitoring program. This would mean that at minimum the re-evaluation would not be required until every component of the AEMP had been completed at least once, which is required to complete a comprehensive review of the entire design plan. The current review schedule creates significant and increasingly redundant work for both the company and reviewers.

## **8. CLOSURE ISSUES**

The WLWB has proposed that the licensee shall revise the Closure and Reclamation Plan every three years in Part K, Condition 2.

There should not be a fixed timeframe for submission of future ICRP's. The existing Part K Condition 2 should be retained such that the timing of future ICRP submissions is determined directly by the WLWB.

While there was a period of time between WLWB approvals of ICRP 2.4 and ICRP 3.0, there were several important closure planning updates approved during that time through the Annual Progress Reports such that one of the objectives for ICRP 3.0 was simply to consolidate those individual updates. This is an important and helpful role for the Annual Progress Reports because it provides a mechanism to address updates in a timely manner without the time and cost required for a full amendment of the ICRP when that may not be necessary. Arctic Canadian recommends that the Annual Progress Report continue to be used for this purpose.

Arctic Canadian is optimistic that mine operations may be extended beyond 2029. However, 2029 remains the scheduled end of operations currently. In that context and given that an FCRP is required in 2027 and ICRP V.3.1 is currently under review, it is not realistic or desirable that the Licence institute an arbitrary 3-year schedule for ICRP submissions. While this approach may be appropriate for some new projects, the need and timing for further ICRP submissions at this stage of the Ekati Diamond Mine should be determined directly by the Board. Arctic Canadian recommends that the existing Part K Condition 2 be retained such that the timing of future ICRP submissions is determined directly by the Board.

Arctic Canadian continues to emphasize its desire to carry out progressive reclamation and acknowledges comments by intervenors in their Closing Arguments that are supportive of these plans.

Arctic Canadian does not agree with the inclusion of GNWT's new recommendation related to the content of the 2023 Annual Geotechnical Inspection Report and ICRP as set out in their Closing Argument. This recommendation should not have a bearing on the conditions considered for the Licence.

The Annual Geotechnical Inspection is required under the Licence and is in place to ensure that structures at the Ekati Diamone Mine remain stable and are functioning to the design intent during operations. Considerations of which structures remain after closure works and re-classification of structures during or following closure works will be addressed through the final Closure and Reclamation Plan. Consideration through the closure plans will allow for appropriate linkages to closure objectives and criteria to be applied and for required community engagement to be carried out related to the closure conditions for dams. There is no value in including such requirements within Annual Geotechnical Inspection Reports and creating multiple avenues for WLWB decisions related to closure, which may risk inconsistencies. The Geotechnical Inspection Report remains the proper mechanism for reporting on dam condition, maintenance, and any required mitigating actions until closure work begins. The Closure and Reclamation Plan is the proper mechanism for closure related issues.

## **9. STANDARD TERMS**

Arctic Canadian prefers that standard conditions be included only with a compelling reason.

Most standard conditions have already been accepted, either as written or as modified to be site-specific. Arctic Canadian had adopted the vast majority of standard terms that were proposed. These

include an array of terms such as the adoption of definitions for the terms ‘Deposit of Waste’, ‘Discharge’,<sup>4</sup> ‘Effluent’, ‘Receiving Environment’, ‘Receiving Waters’ and ‘Wastewater’.

Arctic Canadian is concerned that the adoption of various standard of definitions into the licence is an example of bureaucratic desire for elegance and standardization are being preferred over real-world concerns. The standard definitions set out in the licence are referred to in various conditions and requirements throughout the licence.

These conditions and requirements have been crafted to consider specific concerns and interrelated terms. This is a product of the fact that the Licence has evolved over many years in response to specific concerns. The imposition of new standard terms, inattentive to the evolution of the licence, for no other reason than to add a standard term is not reasonable nor appropriate.

Arctic Canadian is concerned that seemingly minor changes could have unanticipated negative implications. The reality is that even seemingly minor alterations to the Licence can have unintended consequences, particularly given the history of the Licence. The WLWB should be mindful of the realities of how compliance occurs, and the human effort required. Changes to the Licence means that prior understandings, conventions, and practices will need to review and potentially changed, all of which carries a cost. It is not reasonable nor fair for Arctic Canadian to have incur the risk of unintended consequences and the cost of updating practices if the primary motivation for Licence changes is regulatory elegance.

Various proposed changes to the Licence as set out in the WLWB’s draft Licence terms, and Arctic Canadian’s position on them, are set out below.

### **“Construction”, Part 2, Definitions**

The current licence defines construction as “any activities undertaken to construct or build any components of, or associated with, the development of the Project.” The GNWT has recommended the following definition: “any activities undertaken during any phase of the Project to construct, build, upgrade, or replace any structures, facilities, or components of, or associated with, the Project.” The main controversy arises from the addition of the words “upgrade or replace”.

Arctic Canadian is greatly concerned about the vagueness of the words “upgrade” and “replace”. Part F of the Licence contains a variety of conditions that apply broadly to “construction”. These conditions have not been tailored to consider the broad scope of what it may mean to upgrade or replace a facility. Part F, Section 11, for example, requires that the Licensee shall provide written notification to an Inspector 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 application of this term to the “replacement” or any “component” “associated with the Project” is highly burdensome. This level of granular oversight was never intended nor reasonable. Rather than alter every other aspect of the licence to adapt them to standard terms, the appropriate approach is to respect the evolution of the licence and adopt standard terms where there is good reason to do so, and only where there is good reason to do so.

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<sup>4</sup> Arctic Canadian does not object if the WLWB accepts IEMA’s recommendation that the definition of “Discharge” should be expanded to include a “a direct or indirect depos-it or release of any Water, Wastewater or Waste to Receiving Waters”.

## **“Engineer of Record”, Part 2, Definitions**

In its draft Licence, the WLWB has two proposed possible definitions of Engineer of Record: “a qualified Professional Engineer who is responsible for the design changes and performance of the Project Dams”, which is a slightly modified version of the standard definition proposed by GNWT of: “a qualified Professional Engineer who is responsible for the design and performance of the Project Dams. The controversy is over whether the Engineer of Record needs to be responsible for the original design or design changes.

Arctic is concerned that the engineer of record should not be linked to the original design nor design changes. The engineer of record is responsible for performance and safety of the dam. It is inconsistent with Canadian Dam Association Guidelines and current engineering practice to define the engineer of record as responsible for design or design changes. Canadian Dam Association and other engineering associations provide a complementary parallel definition for “design engineer” that is distinct from engineer of record.

Section 3.1.3 of the Canadian Dam Association Mining Dams Technical Bulletin 2019 is titled “Engineer of Record” and describes in detail the role of the EOR, including the following:

- “The EOR advises the Owner, in a timely fashion, of discrepancies and makes recommendations regarding necessary corrections or remedial actions to achieve compliance with the above requirements”;
- “The EOR is often the Design Engineer, but this is not always the case”;
- “Mining dams will typically have a very long service life, so the EOR role will likely need to be transferred over time”.

The Alberta Energy Regulator provides the following as part of two relevant definitions”

- "engineer-of-record [...] is responsible to provide technical direction regarding the safety of a dam or canal"; and
- "designer-of-record [...] is responsible for the overall design of the structures in a dam or canal”.

The Engineers and Geoscientists of British Columbia provides the following as part of two relevant definitions (Legislated Dam Safety Reviews In BC, APEGBC Professional Practice Guidelines V3.0):

- “Engineer of Record (EOR) - The professional engineer responsible for assuring that the dam is safe”; and
- “Designer Engineer - The professional engineer who has overall responsibility for the design of the dam”.

Each of these organizations distinguish between the designer and the engineer of record. This is because there are different responsibilities expected of a designing engineer and the engineer responsible for ongoing oversight and safety of the dam. This reality is better reflected by the definition “a qualified Professional Engineer who is responsible for the design changes and performance of the Project Dams”.

## **“The Licencee May Propose Changes...”, Part B, General Conditions**

The GNWT has recommended that a standard condition be added that the “Licensee may propose changes at any time by submitting revised plans, programs, or reports that require Board approval, to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the

changes. The Licensee shall not implement the changes until approved by the Board.” The controversy is over the 90-day minimum period.

Arctic Canadian finds the standard condition acceptable with omission of the phrase “a minimum of 90 days prior to the proposed implementation date for the changes”. This is a prohibitive restriction on Arctic Canadian and removes autonomy from the WLWB.

Arctic Canadian and the WLWB should have the flexibility to determine appropriate notice periods to suit the circumstances. Current practice in the Licence is that a specific submission timeframe is specified for certain plans as part of the requirements for those plans. For example, current Conditions F.3, H.2 and H.3 specify 90 days submission timeframes as appropriate for those plans. Not all submissions require a 90-day notice. If the WLWB were to determine that an issue required more than 90 days to consider a proposed change, the Licence should allow for such flexibility. A minimum period notice period is ultimately redundant as Arctic Canadian cannot proceed without WLWB approval because there is already a general prohibition that “[t]he Licensee shall not implement the changes until approved by the Board”.

#### **“Unless otherwise approved by the Board...”, Part B, Condition 5**

Arctic Canadian supports the inclusion of the words “or Progressive Reclamation” in the following condition because it adds clarity that Arctic Canadian may proceed with planned progressive reclamation:

“Unless otherwise approved by the Board, the Licensee may not submit security adjustment requests except with any of the following submissions:

- a) Closure and Reclamation Plans;
- b) Closure and Reclamation or Progressive Reclamation Completion Reports; or
- c) Performance Assessment Reports.”

#### **“Water use fees are to be paid...”, Part D, Condition 4**

Arctic Canadian and GNWT agreed that the following text ought to be used in this condition, which has not been objected to by any intervenor:

“Water use fees are to be paid annually prior to each anniversary date of this Licence and in accordance with the annual use for the upcoming year as outlined in the approved Back-flooding or Drawdown Plan”.

#### **“For water uses outlined...”, Part E, Condition 5**

Arctic Canadian asks that the following condition only refer to Part D, Condition 2: “[f]or water uses outlined in Part D Conditions 2 ~~and 3~~, the Licensee shall ensure that Drawdown rates from pumps do not exceed 2.55 m<sup>3</sup>/s during May to July, inclusive, and 0.52 m<sup>3</sup>/s during the remaining months for water uses outlined in Part D Conditions 2 ~~and 3~~.”

This condition is not linked to Part D condition 3 because those water uses are for one-time dewatering and are subject to project-specific pumping rates that are approved in a Dewatering Plan. Possible

additional one-time uses that could be added to Condition D.3 in future would either be for dewatering or, if for drawdown, would be subject to pumping rates approved in a Drawdown Plan.

**“A minimum of 10 days prior...”, Part F, Condition 3**

Arctic Canadian has proposed a submission timeframe of a minimum of 10 days in the following condition: “A minimum of 10 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board, Design Drawings stamped and signed by a Professional Engineer. A minimum of 10 days prior to implementing any proposed changes to the Design Drawings, the Licensee shall submit revised Design Drawings to the Board”/

This Condition is not intended to ensure approval but recordkeeping. It ensures that stamped design drawings have been prepared and are documented on the public record. These drawings are not for Board approval and, therefore, a submission timeline linked to a Board-approval process is not relevant.

**“The Licensee shall submit to the Board, a Terms of Reference...”, Part F, Condition 22**

Arctic Canadian does not believe that the Terms of Reference developed by expert(s) should be for WLWB approval. The Tailings Review Panel is the appropriate reviewing body to determine what is required to assess the integrity of the Long Lake Containment Facility. Arctic Canadian proposes the following wording as a result: [t]he Licensee shall submit to the Board, a Terms of Reference for [enter: the Independent Tailings Review Panel or an Independent Professional Engineer] for the Long Lake Containment Facility, unless otherwise approved by the Board. Licensee shall submit a revised Terms of Reference 30 days prior to implementation of any changes to the Terms of Reference.”

Arctic Canadian also disagrees with IEMA’s recommendation that the definition of ‘Independent Tailings Review Panel’ should be expanded to include “one or more third-party subject matter expert(s) who are independent of the licensee and who are not and have not been directly involved in the design, construction or operation of the LLCF”. Arctic Canadian agrees with the definition as it appears in the draft licence terms proposed by the WLWB.

**“The Licensee shall dispose...”, Part H, Condition 4**

Arctic Canadian proposes a modified standard condition as follows: “[t]he Licensee shall dispose all Waste as described in the approved Waste Management Plan, or as otherwise approved by the Inspector for a duration not greater than 90 days.”

Arctic Canadian has found that minor variations on a localized, short-term basis may be helpful without compromising the intent or overall direction of the WMP. The Inspector should be enabled to address specific operational items of this nature to avoid delays for WLWB approval of minor short-term variations. The Inspector has the discretion to not approve a request and/or to refer a request to the WLWB if warranted. The Licence contains numerous examples of the Inspector’s authority to address operational issues (Part D Condition 1 or Part G Condition G1(e), for example).

Arctic Canadian acknowledges the concern expressed by the TG in their Closing Argument that the Inspector should not usurp the role of the WLWB. Arctic Canadian does not believe this is what is being asked of the Inspector with this condition. The WLWB maintains overall oversight of the Inspector, particularly given the Inspector’s power to impose directions pursuant to section 67 of the *Waters Act*

where the Inspector is authorized to make decisions to ensure the purposes of the Licence are carried out as best as possible.

This condition would not give the inspector the authority to overrule a WLWB decision. The inspector does have the authority to approve amended Management Plans. The inspector has the responsibility to enforce the Permits and Licences, as approved by WLWB. As mentioned above, at the Inspector's discretion, the authorization could be conditional on Arctic Canadian submitting a revised Plan to the WLWB.

The 90-day time limit would allow time for the submission to the WLWB, but also exploration of short-term alternative solutions should the authorization expire prior to the company receiving WLWB authorization.

#### **"Phase 1 Tailings Containment Area", Part H, Condition 14**

Arctic Canadian seeks to have this condition removed. The Phase 1 Dam is not a "dam" as defined in Canadian Dam Association Guidelines and this Licence.

However, if the Phase 1 Dam remains listed in (new) Schedule 5 Condition 5 of the Licence, Arctic Canadian intends to provide documented engineering determination of the classification of the Phase 1 Tailing Containment Area in line with the requirements of (new) Schedule 5 Condition 4 for review and approval. Arctic Canadian is confident that it can demonstrate to the Board's satisfaction that the previous Phase 1 Dam is not a "dam". In that event, Arctic Canadian's understanding is that the requirement for annual geotechnical inspection under Part H Condition 14 would no longer apply to the previous Phase 1 Tailing Containment Area.

Arctic Canadian suggests the following wording for Part H Condition 14 to accommodate the potential removal of Phase 1 Dam from Schedule 5 Condition 5:

14. The Licensee shall manage the Phase 1 Tailings Containment Area in accordance with 14 a) if the Phase 1 Dam is not listed in schedule 5 Condition 5. If the Phase 1 Dam is listed in schedule 5 Condition 5 the Licensee shall manage the containment area in accordance with 14 b).

A) The Licensee shall:

- I. Inspect the Phase 1 Tailings Containment Area annually or more frequent inspections at the request of an Inspector, to assess physical stability;
- II. Ensure that Seepage from the Phase 1 Tailings Containment Area is managed in accordance with the Seepage Response Framework as described in Schedule 6, Condition 2; and,

B) The Licensee shall:

- I. construct, operate, and maintain the Phase 1 Tailings Containment Area to design specifications such that:
  - a) A minimum Freeboard limit of 1.0 metre, or other Freeboard limit as recommended by a Professional Engineer, shall be maintained at all times;
  - b) Ensures that Seepage from the Phase 1 Tailings Containment Area is managed in accordance with the Seepage Response Framework as described in Schedule 6, Condition 2; and,
  - c) Any constructed facilities that are eroded are repaired immediately.



II. 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

III. An inspection of the Phase 1 Tailings Containment Area shall be carried out annually in the open-water season by a Professional Engineer. The Professional Engineer's full Geotechnical Inspection Report shall be submitted to the Board as part of the Annual Geotechnical Report, including an implementation plan to respond to any recommendations made by the Professional Engineer.

#### **"Inspections of the Settling Ponds...", Part H, Condition 15b**

Arctic Canadian recommends retention of the existing condition (i.e., Option 1 as described in the draft licence): "Inspections of the 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..."

The use of settling ponds can be intermittent. It is more appropriate and more protective that inspection is conducted according to use rather than a prescribed timeframe. The winter season is a particularly problematic timeframe for prescribed monthly inspection at inactive settling ponds and exposes employees to health and safety risks related to unnecessary outdoor winter work. The existing Condition has been effective, to Arctic Canadian's understanding, through 25 years of mine operations and does not require amendment.

#### **"A minimum of ten days prior...", Part H, Condition 18**

Arctic Canadian disagrees with the inclusion of a notification of a minimum of 10 days before conducting the Dam Safety Review required under Part H Condition 17. This inclusion is unnecessarily restrictive and could lead to the company being out of compliance due to potential schedule updates, personal updates, and changes in circumstances. Restrictions on notifications will only hinder the company from commencing the Dam Safety Reviews at an appropriate timeline. Arctic Canadian has no concerns with providing notification to the WLWB and Inspector prior to commencement of field visits for a Dam Safety Review and if any further changes are required.

#### **"Following completion of initial Dewatering", Part H, Condition 25**

In their Closing Argument, the TG continue to push for changes to Part H, Condition 25 to add the words "Seepage, and Runoff" into an enumerated list of what shall be directed to the King Pond Settling Facility. The standard condition, adopted into the WLWB's draft Licence does not contain the word "runoff". The standard condition is sufficient to address environmental risk. There are already a variety of protections arising from the definitions of wastewater and Discharge which restrict what can be done with runoff from the Point Lake Development. EQCs also apply. Arctic Canadian also notes that pursuant to Schedule 5, section 3(b)(xvii), the Point Lake Project WRSA and Overburden pile are required to have a WRSA Design Plan that includes a description of the WRSA seepage collection system. There is no need to have duplicate requirements in the Dewatering Plan to address WRSA seepage concerns. Finally, the standard condition already concludes with "unless otherwise approved by the Board" which can address any issues.

**“The Licensee shall Ensure that Unauthorized Releases...”, Part I, Condition 1**

Part B Condition 2 of the draft Licence ensures appropriate protection of the environment in a more appropriate manner than the addition of this term. Additionally, there is a potential contradiction between use of the word “ensure” in standard Condition H.1 and other standard conditions such as Part I Condition 2 and 3 that acknowledge the potential for an unauthorized release and list requirements to be implemented in such an event. Arctic Canadian continues to recommend against insertion of standard Condition H.1 into the Licence.

**“One year prior to Progressive Reclamation...”, Part K, Condition 4**

The WLWB’s draft licence has added the following standard condition:

One year prior to Progressive Reclamation of any specific component of the Project, and until a final Closure and Reclamation Plan is approved, the Licensee shall submit to the Board, for approval, a Component-Specific Closure and Reclamation Plan. The Licensee shall not commence activities described in the Plan prior to Board approval.

This standard condition has been the topic of discussion throughout the permitting process. Arctic Canadian’s concerns related to this condition have significantly increased as the inclusion of this condition will eliminate progressive reclamation opportunities at the Ekati Diamond Mine by tying “progressive reclamation” that is approved through the ICRP or through a component-specific authorization to the License. During the Water License proceedings, it seemed that Board Staff interpret the undefined term component much more broadly than Arctic Canadian does. This condition will require development, submission, and approval of closure criteria for every aspect of a project before any work can begin. For example, Arctic Canadian would be required to have submitted closure criteria for a projects WRSA before we could begin back flooding a pit or scarifying roads and pads where criteria are entirely unrelated to the final closure of a WRSA. Extended review processes for a component-specific final closure and reclamation plan will eliminate the company’s ability to opportunistically commence reclamation work where there is a window of opportunity when equipment and other resources are available and, as such, cannot be planned and scheduled over one-year in advance.

To be effective, a progressive reclamation program requires operational flexibility and certainty that security will be returned after the work is completed. At the Ekati Diamond Mine approved closure objectives are in place that can guide project-specific approvals if necessary, outside of the approved ICRP. Arctic Canadian is concerned that the phrase “any specific component” is undefined and can be interpreted broadly in a manner that precludes timely completion of individual progressive reclamation projects. For example, during the Public Hearing, a representative of the TG stated that they did not believe that a Back-Flooding Plan would be considered a Component of a Specific Closure and Reclamation Plan. Excluding this activity will lead to unnecessary delays or complete abandonment for filling Pigeon Pit until an approved closure plan is in place for the entire pigeon project and the company can be certain that it will receive an appropriate return of security.

**“A Minimum of 24 months prior to the end...”, Part K, Condition 5**

The WLWB has included the following standard term in the draft Licence:

“A minimum of 24 months prior to the end of commercial operations or three years prior to the expiry date of this Licence, whichever occurs first, the Licensee shall submit a Final Closure and Reclamation Plan to the Board for approval.”

It is not possible to fully understand what implication this condition may have given that Arctic Canadian does not know the approved duration of this Licence. Due to this uncertainty and to remain consistent with closure guidelines, Arctic Canadian suggests “A minimum of 24 months prior to the end of commercial operations the Licensee shall submit a final closure and reclamation plan to the WLWB for approval.” This is in line with closure guidelines.

**“In addition, for any Drawdown Plan describing water...”, Schedule 4, condition 1(i)**

The DFO has recommended the following addition:

“In addition, for any Drawdown Plan describing water use from Lac du Sauvage, the Plan shall include, but not be limited to: i. Description of adaptive management to protect fish habitat in the narrows between Lac du Sauvage and Lac de Gras”

This wording is unnecessarily specific. Drawdown plans need to describe volumes and rates that are protective of the source lake and must include mitigation and adaptive management to ensure the lake is protected. This requirement already includes the protection of aquatic life, it is not clear how the specificity of this addition to the schedule enhances the Licence.

However, should the WLWB choose to retain the addition to the Schedule, this condition appears redundant to the inclusion of this requirement under Schedule 3 Condition 1. Schedule 3 may be the more appropriate location for this requirement.

**The Phase 1 Dam, Schedule 5, Condition 5**

In its draft Licence, the WLWB has included the Phase 1 Dam as among the structures considered Dams in Schedule 5.

The Phase 1 Dam does not meet the Canadian Dam Association definition of a dam. As a result of progressive reclamation, the structure would not be able to retain 30,000 cubic metres of liquid and it does not otherwise meet the expectations set out in the Canadian Dam Association guidelines. The Phase 1 Dam ought to be removed from the list of dams set out in Schedule 5, Condition 5 because the facility has undergone reclamation is no longer used for containment.

However, if the Phase 1 Dam remains listed in (new) Schedule 5 Condition 5 of the Final Licence, Arctic Canadian will provide a documented engineering determination as part of the subsequent Annual Geotechnical Inspection Report per (new) Schedule 5 Condition 4. Arctic Canadian is confident that it can demonstrate to the Board’s satisfaction that the previous Phase 1 Dam is not a “dam”. In that event, Arctic Canadian’s understanding is that the requirement for annual geotechnical inspection under Part H Condition 16 would no longer apply to the previous Phase 1 Dam.

**“The Closure and Reclamation Plan Progress Report...”, Schedule 9, Condition 2**

In its draft Licence, the WLWB added a standard condition regarding a reclamation research report.

Arctic Canadian had initially proposed that a reclamation research report per the WLWB's standard conditions be provided through the existing Annual Reclamation Progress Reports rather than as an additional standalone report. However, Arctic Canadian had not intended that a reclamation research report would be for approval on an annual basis. Approval on an annual frequency would be disruptive and would significantly hamper Arctic Canadian's ability to conduct the work. Arctic Canadian's intent was for annual reporting in the Annual Progress Report with approval of the reclamation research report with each amendment of the ICRP. The needs for research are identified in the ICRP and this approach appropriately links review and approval of the reclamation research report to changes in reclamation activities and reclamation needs that are identified in the amended ICRP.

The WLWB's standard Part I Condition 8 requires submission of a reclamation research report for approval every 3 years. Arctic Canadian believes annual reporting on reclamation research in the Annual Reclamation Progress Report, with approval of the reclamation research report with each amendment of the ICRP is sufficient.

However, in light of the draft condition provided by WLWB staff, Arctic Canadian provides a secondary recommendation to revert to the Board's standard Part I Condition 8 requiring submission and approval of an RRP every 3 years. Arctic Canadian emphasizes that a requirement for annual approval will negatively affect Arctic Canadian's ability to conduct the work.

## **10. CONCLUSION**

Subject to the comments in this Closing Argument and Arctic Canadian's comments on the draft Water Licence, Arctic Canadian respectfully requests that the WLWB issue the renewed Water Licence. Arctic Canadian acknowledges the work of the WLWB and Board Staff to conduct this proceeding according to the workplan schedule. Arctic Canadian requests that the WLWB continue to adhere to the workplan that indicates issuance of the Water Licence for Ministerial authorization in September 2023.

Arctic Canadian would once again like to thank all parties to the water licencing process for their participation and input into the review of the Application materials and supporting documentation and to the WLWB and its staff for running an efficient and effective process.



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