Dear Mr. Mackenzie:

Subject: DDMI Response to Parties' Letters regarding Interventions re: Water Licence W2015L2-0001 Amendment Request for the A21 Below Pit Mining Project

Diavik Diamond Mines (2012) Inc. (DDMI) is pleased to provide the Wek’eezhii Land and Water Board (WLWB or ‘the Board’) with its response to Parties’ letters submitted to the WLWB stating their positions on Interventions for the WLWB Proceeding associated with DDMI’s Application for an Amendment to Water Licence (W2015L2-0001) for the Diavik Diamond Mine to allow for the A21 Below Pit Mining Project (the Project or Application).

DDMI notes that, to date, the following Parties have submitted letters to the WLWB regarding Interventions for the Board’s A21 Below Pit Project Proceeding:

- Environmental Monitoring Advisory Board (EMAB)
- Environment and Climate Change Canada (ECCC)
- Government of Northwest Territories – Department of Environment and Natural Resources (GNWT-ENR)

DDMI acknowledges EMAB’s and ECCC’s decisions not to intervene in the WLWB’s A21 Below Pit Project Proceeding. DDMI also acknowledges GNWT-ENR’s position, in its letter to WLWB, that it does not need to present to the Board at a Hearing if DDMI can resolve or accept GNWT-ENR’s recommendation in its letter to WLWB regarding Interventions.

DDMI notes that it has endeavoured to address Parties’ Information Requests, comments and outstanding issues throughout the Board’s A21 Below Pit Project Proceeding and in one-on-one engagement and discussions with Parties. DDMI is pleased that Parties are generally satisfied with DDMI’s responses to technical comments and outstanding issues. DDMI has included its response to GNWT-ENR’s recommendation to this letter, which includes an acceptance of GNWT-ENR’s updated recommendation that replaced their initial recommendation. An explanation of this update is provided within our response.
Based on DDMI’s acceptance of GNWT-ENR’s updated recommendation, DDMI understands that GNWT-ENR does not need to present to the Board at a Hearing.

For clarity and transparency, DDMI wishes to emphasize that the A21 Below Pit Project is not currently economically viable and may not become economically viable. However, DDMI still wishes to complete the Water License Amendment Process so that if in the future the A21 Below Pit, Project becomes economically viable it can be advanced readily.

In conclusion, based on the information provided to date throughout this Proceeding, DDMI would not object if the Board decided that a WLWB Public Hearing for the A21 Below Pit Project was not required. Please do not hesitate to contact the undersigned or Kofi Boa-Antwi (867 447 3001 or kofi.boa-antwi@riotinto.com) if you have any questions related to this submission.

Sincerely,

Sean Sinclair
Principal Advisor, Environment and Closure Readiness

cc: Kassandra DeFrancis, WLWB
    Anneli Jokela, WLWB

ATTACHMENT: DDMI’s Response to GNWT-ENR Recommendation in its Letter regarding Request for Intervention
APPENDIX

DDMI Response to GNWT-ENR Recommendation in its Letter regarding Request for Intervention
Diavik Diamond Mines Inc.

Water Licence Amendment Application - A21 Underground Amendment

Response to Interventions

W2015L2-0001

Document #: ENVI-1065-0420 R0

1 May 2020
Table of Contents

1. Government of the Northwest Territories (GNWT) – Recommendations 3
   1.1 DDMI’s Response to GNWT’s Recommendations 4
1. Government of the Northwest Territories (GNWT) – Recommendations

**Groundwater Quality** (submission to WLWB 2020-04-17)

1. ENR recommends DDMI commit to collecting more groundwater quality samples below the A21 pit. These samples should be analyzed to confirm current water quality predictions that ultimately report to Lac de Gras. If predictions or trends of water quality by DDMI start exceeding the current worst-case scenario presented, DDMI should provide further evidence demonstrating that there will be no additional impacts to the receiving environment (i.e., Lac de Gras) or propose mitigation measures.

**Water Quality Monitoring** (email to DDMI 2020-04-24 updating the sole Recommendation 1)

2. Diavik has stated (2020-04-21 e-mail) that volumes of water pumped from SNP location 1645-51 and the total chemical load from A21 to the North Inlet is monitored. Because the predictions made regarding the absence of environmental effects associated with the A21 underground project are contingent upon the accuracy of the loads reporting to the NIWTP, and, because monthly SNP reports are currently required under the Water Licence, ENR requests that Diavik include, in the monthly SNP report the following:

   a. A time-series of volumes of water pumped from 1645-51 to the NI.
   b. A time-series of analyte concentrations and TDS, TP, TN in water from 1645-51.
   c. A time-series of monthly loads of TDS, TP, and TN reporting to the NI from 1545-51.

The time-series should begin at least 12 months (or as soon as feasible) before underground work commences and should be added in each SNP report. These plots will provide visualization of the data already being provided by Rio Tinto in tabular format and, will allow interested parties to track how well Diavik's predictions match reality.
1.1 **DDMI’s Response to GNWT’s Recommendations**

1. DDMI contacted the GNWT directly for clarification on Recommendation 1. As part of this engagement DDMI explained that DDMI currently monitors A21 water chemistry at SNP station 1645-51 bi-weekly and monitors flow daily. This station is representative of all A21 water that reports to the North Inlet. At the North Inlet A21 water mixes with other site water and then is treated in the North Inlet Water Treatment Plant before discharge to Lac de Gras. Monitoring of SNP station 1645-51 will continue for all of A21 Operations (capturing all open pit and potential underground water in the future). This approach to monitoring cumulative A21 water is similar to the current approach at the A154 and A418 mines where sampling is not subdivided between the pit, underground or other smaller components. Monitoring a combination of all mine water is the most practical because water from all levels naturally reports to the lower portions of the mine where it is pumped out. The total chemical load contribution from A21 (i.e. flow and chemistry at 1645-51) was estimated in the A21 Below Pit water quality predictions (subdivided into “Open Pit” and “Deep” contributions). Throughout Operations the flow and chemistry data at SNP station 1645-51 will directly monitor if predictions or trends of water quality provided within the Amendment start exceeding the worst-case scenario presented. A visual explanation of how current Operational monitoring will accurately monitor actual contributions from A21 without the need for an expanded sampling program is presented as **Attachment 1**. Based on this engagement, GNWT-ENR confirmed removal of Recommendation 1 for additional monitoring of water below the A21 pit. GNWT-ENR’s removal of this data request was contingent on groundwater flow at A21 not becoming substantively higher than claimed in the predictions. To allow Parties to track how well DDMI’s predictions match reality, GNWT-ENR provided an updated Recommendation 2.

2. DDMI accepts GNWT’s amended Recommendation to provide a dataset and plots within the Monthly SNP Report of the following information commencing at least 12 months before Operation of the A21 Below Pit Project:
   a. A time-series of volumes of water pumped from 1645-51 to the North Inlet.
   b. A time-series of analyte concentrations and TDS, TP, TN in water from 1645-51.
c. A time-series of monthly loads of TDS, TP, and TN reporting to the North Inlet from 1545-51.
Attachment 1

Visual Explanation of A21 Model Predictions and Equivalent Monitoring
A21 Below Pit Model Predictions

A21 Pit Load (range) estimated in model
A21 UG Load (range) estimated in model

Total A21 Load (range) estimated at 1645-51

North Inlet Load (range) estimated at 1645-13

North Inlet Treatment Plant

Lac de Gras Load (range) estimated at 1645-18&18B

Based on historical AEMP Monitoring

Total A21 Load monitoring will show if predictions or trends of water quality start to exceed the current worst-case A21 model scenario

All Other Site Loads from various SNP stations

Monitoring and Management

Total A21 Load measured at 1645-51

A21 Pit Load
A21 UG Load

Monitoring does not break out A21 Pit and UG loads. This is consistent with current monitoring at A154 & A418 mines

North Inlet Load measured at 1645-13

North Inlet Treatment Plant

Effluent Quality Criteria Unchanged

Load to Lac de Gras measured at 1645-18&18B

Direct Measurement of Effects to LDG

AEMP Monitoring of Lac de Gras

Response Plans and Adaptive Management