



**Tłıchǫ Government**

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October 4, 2019

Mackenzie Valley Environmental Impact Review Board  
200 Scotia Centre Box 938  
5102-50th Ave  
Yellowknife, NT  
X1A 2N7

**Re: Tłıchǫ Government Final Submission Regarding Depositing Processed Kimberlite into Pits and Underground Mine Workings, EA1819-01**

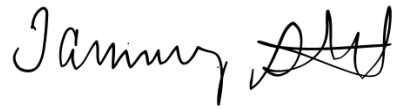
The Tłıchǫ Government herein provides the Mackenzie Valley Environmental Impact Review Board (the “Review Board”) with our final submission regarding EA1819-01, Diavik Diamond Mine Inc. (Diavik)’s plan to put and store processed kimberlite in pits and underground mine workings (the “Project”). The Tłıchǫ Government thanks the Review Board for the opportunity to participate in the review.

The Tłıchǫ Government has significant concerns with the lack of scientific certainty around how processed kimberlite will settle in the pits, and whether there could be impacts at closure and post-closure in Lac de Gras. This uncertainty was discussed throughout the hearings, and clearly explored by all parties. As a result, the Tłıchǫ Government recommends to the Board that the Project not proceed if, after expert review and further modelling, it becomes clear that there will be impacts of the proposed closure approach on cultural use of the area or water quality in the water bodies proximate to the pits. Further, the elders that have participated throughout the hearings are clearly concerned about the maintenance of water quality in the region and how adverse impacts to water quality may impact their exercise of their rights and their way of life on the land.

In our closing argument, we offer submissions with respect to the process moving forward as well as the measures that can be taken with respect to the 128(1) decision that the Review Board is charged with making. It is the Tłıchǫ Government’s view that the Board, consistent with its authority under the *Mackenzie Valley Resource Management Act* (“MVRMA”) has two options. First, the Board could utilize Section 128 (2.4) to request the sort of study that has been contemplated and discussed in the hearings and now in closing argument by the parties before issuing its decision. This would allow the Board to shore up information gaps prior to making the 128(1) decision that is required, ensuring the Board’s decision is made with full information and with an ability to assess the Project’s potentially adverse environmental impacts. Second, the Review Board could proceed with the 128(1) decision, and use the conditions developed as part of the closure comments from all parties to set the stage for a duly considered water licensing decision. The Tłıchǫ Government is comfortable with either approach, given the faith we hold in both the environmental

assessment and water licensing process – both of which are enabled through the MVRMA and the *Tłıchǫ Agreement*.

We wish you all the best in your deliberations,

A handwritten signature in black ink, appearing to read "Tammy Steinwand-Deschambeault". The signature is written in a cursive, flowing style.

Tammy Steinwand-Deschambeault  
Director, Department of Lands and Culture Protection

## 1.0 Water Quality Mandate and Modeling

There remains a high level of uncertainty regarding the model used and the calculations made by Diavik regarding the possible impacts of the Project on water quality. There continues to be much uncertainty with respect to the model, and predictions based on the model results. Diavik has failed to provide sufficient credible evidence that filling the pit with fine processed kimberlite (“FPK”) poses no significant environmental risk to Lac de Gras.

The Tłchq Government recognizes the new commitments made by Diavik (PR 172, Sept. 20), specifically Commitment 28, namely those in which the company commits to new modelling and independent expert review. The company also accepts these as future license conditions or measures, and the Tłchq Government sees that these could feasibly be measures to direct future stages of water licensing. Two items need Board attention: (i) the composition of the team that prepares and executes the independent data collection exercise, and (ii) the sequencing of data collection. We note that:

DDMI recognizes the importance of water quality modelling in the decision to deposit PK in mine workings. DDMI would also like to ensure confidence in the model predictions. DDMI commits, as a condition of an amended Water License, to submit a review prepared by an Independent expert. The review would be of the updated modelling that would be submitted as part of the Processed Kimberlite Containment in Mine Working Design Report for the WLWB approval prior to commencement of PK deposition. Similar conditions exist in DDMI’s Water License for independent geotechnical reviews of critical engineering designs. (PR 172, Sept. 20, Commitment 28)

The Tłchq Government considers it vital to have data and assumptions tested and confirmed *before* water license measures are completed. Additionally, the Tłchq Government believes there needs to be broad expertise available to construct and execute the modelling exercise. To that end, the Tłchq Government suggests the following measures:

### **Recommended Measure #1:**

The Tłchq Government recommends that updated water quality modeling be conducted, given that the modeling conducted to date to assess the deposition of processed kimberlite (“PK”) into pits has been characterized by DDMI as “preliminary” and “subject to further evaluation”. Updated modeling is required in order to assess *if* the deposit of PK to the open pits and mine workings should be approved as the significance of depositing PK into the open pits and mine workings is not possible to adequately characterize at this time. The deposit of PK to the open pits and underground workings should only occur if water quality is demonstrated by updated modeling to be acceptable.

### **Recommended Measure #2:**

The Tłchq Government recommends that the Review Board apply the precautionary principle and include a measure to avoid significant adverse effects on water quality by

requiring DDMI to establish an independent review panel that will work collaboratively with all interested parties. This collaborative process would include:

- establishing the composition of the independent review panel;
- establishing how the review panel would select the water quality model and inputs;
- documenting how the independent review of the modeling results will be structured;
- documenting the process for the independent review panel reporting;
- developing a process for incorporating the recommendations of the independent review panel which would also include the modeling; and
- developing a process for reviewing monitoring outcomes and providing adaptive management advice during the placement of processed kimberlite into the pits.

## **2.0 Clear Measures for Water Quality**

Considering the level of uncertainty that remains, it is important that clear measures are set to protect water quality and ensure the Project does not impact the ability or willingness for traditional users to access Lac de Gras and the connected waterways. These types of measures have been prepared previously to protect water quality, notably in the EA decisions surrounding (a) Canadian Zinc Corp.'s Prairie Creek All Season Road Project (All Season Road) (EA1415-01) and (b) Fortune Minerals Ltd.'s NICO Project (EA0809-004).

### **Recommended Measure #3:**

The Tłı̨chǫ Government recommends that the Review Board include a measure, to avoid significant adverse effects to water quality to Lac de Gras, that based on the updated modeling and independent review (Recommendation Measure #2) the following narrative statements be met prior to approving the deposit of processed kimberlite into the mine workings and open pits:

- Water quality within the pits meet water quality objectives or benchmarks such that;
  - Ecological and hydrological changes to pit water and Lac de Gras are of low magnitude during closure and post-closure; and,
  - Traditional water uses are not adversely affected from the deposition of processed kimberlite into the pits, now and into the future.

## **3.0 Tłı̨chǫ Elder Assessment of Impacts to Culture and Way of Life**

During the hearings and the review process, elders expressed concern regarding tailings facilities getting too high – they were concerned that they will drive animals away, and in their response to the Review Board Information Request, the elders named many pathways of concern (PR#43, July 4, 2019). As elder Joseph Judas explained,

To date when I went on periodic visit to the mine site, we see that the big waste rock pile that seems to be expanding, growing. This is an area where

the caribou used to migrate and roam freely. (EA1819-01 Hearings: September 3, 2019, Behchoko)

The Tłı̨chǫ Government notes that elders have indicated a preference towards maintaining the height of the processed kimberlite containment facility, rather than further increasing its height. To that end, placing the processed kimberlite in the pit may achieve this closure goal, *should* it be proven to be safe.

Elders were also clear that the Project should not move ahead without resolving the issues associated with modeling and providing clear evidence that there is no possibility of contamination. The Tłı̨chǫ Government notes that Diavik made the following commitment in the hearings: Commitment #1: If pre-deposition modelling shows that Diavik cannot meet AEMP benchmarks in the top 40 m of the pit lakes, Diavik will not put processed kimberlite in the pit. (see pp 98-99 of September 5, 2019).

Elders noted the fact that water quality and values surrounding water is viewed differently by Tłı̨chǫ standards than it is by government and company standards and that it is necessary to consider how knowledge holders evaluate impacts, water quality, the interconnected ecosystems, as well as the dependency of those people living along the waterways and off of the surrounding resources. They reiterated that you cannot separate water quality from the quality of the land, the wildlife, and their use of the area. Violet Camsell-Blondin of the Tłı̨chǫ Government summarised the concerns of the Tłı̨chǫ elders and community members that if water is impacted along with ecosystems and wildlife, “our traditional lifestyle of hunting, trapping, and fishing and our harvesting practices is also going to be compromised” (EA1819-01 Hearings, September 3, 2019, Behchoko). Therefore, if water is impacted, then so too will their use of the area.

The Tłı̨chǫ Government notes that a very limited alternatives assessment was completed during the public hearings, at the Dettah hearing (Summarized in Undertaking #1) and then further through Undertaking #3, which included an expanded and detailed written response on advantages and disadvantages of the no project alternative, and a contrast of the pros and cons of placing PK in pits versus in the facility. There was a limited approach to considering the alternatives, and the key intent should be to preserve and consider further these alternatives in the case that the data illustrates that the Aquatic Environmental Monitoring benchmarks cannot be met. The Tłı̨chǫ Government therefore recommends that the commitment made by the company be turned into a measure.

#### **Recommended Measure #4:**

If pre-deposition modeling shows that Diavik cannot meet aquatic benchmarks in the pit lakes, to be established by the Wek'èezhì Land and Water Board, that conform with the narrative statements established under recommended measure #3, the Tłı̨chǫ Government recommends that Board requires that the company not place processed kimberlite in the pit.