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Mark Cliffe-Phillips
Executive Director
Mackenzie Valley Environmental Impact Review Board
P.O. Box 938
Yellowknife, NT X1A 2N7

6 June 2021

Dear Mr. Cliffe-Phillips:

Subject: DDMI 2020 PKMW Project EA Annual Report

Diavik Diamond Mines (2012) Inc. (DDMI) is pleased to provide the Mackenzie Valley Environmental Impact Review Board (MVEIRB or the Board) with its inaugrual annual reporting (the appended 2020 PKMW Project EA Annual Report) on the Processed Kimberlite to Mine Workings Proposal (PKMW) as per the MVEIRB's follow-up program requirements in the Report of Environmental Assessment and Reasons for Decision (REA) issued by the Board in January 2020 and approved by the Responsible Ministers in June 2020.

The 2020 PKMW EA Annual Report provides an update on the post-EA regulatory process to date, status on DDMI's implementation of the REA Measures and DDMI's commitments made during the PKMW EA or Review.

As highlighted in the appended Annual Report, DDMI has completed or advanced the implementation of some of the REA Measures and its commitments; however, a majority of the REA Measures and DDMI commitments will apply prior to and during the construction, operation, and closure phases of the PKMW Project. DDMI will provide updates on its implementation of the REA Measures and its commitments in subsequent annual reports to the Board.

Please do not hesitate to contact the undersigned at Kofi.Boa-Antwi@riotinto.com if you have any questions related to this submission.



Sincerely,

Kofi Boa-Antwi

Superintendent, Environment

cc: Catherine Fairbairn, MVEIRB

Kate Mansfield, MVEIRB



Diavik Diamond Mines Inc.

Processed Kimberlite to Mine Workings (PKMW)

2020 PKMW Project EA Annual Report

MVEIRB File No.: EA1819-01

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Plain Language Summary

Diavik Diamond Mines (2012) Inc. (DDMI) is asking for approval for the deposition of processed kimberlite into one or more of two underground and/or open mine workings (A418 and A154) located at the Diavik Diamond Mine beginning in late 2021 (the proposal is also called PKMW in this document). Based on the current mine plan, A418 is the preferred and likely option and A154 is the alternate. The A21 mine working was removed from consideration during the Mackenzie Valley Environmental Impact Review Board's (MVEIRB) Review of the PKMW.

The PKMW can be summarized as follows. First, DDMI will deposit processed kimberlite in the form of a slurry into the mine workings. Most water deposited as part of the processed kimberlite slurry will be pumped out of the pit, but some of this "porewater" will remain on top of the processed kimberlite. DDMI will then add freshwater from Lac de Gras overtop of the processed kimberlite in the pits to create a deep pit lake where stable layers of water will form naturally, isolating the processed kimberlite from the surface environment. Over one to two years, this porewater will concentrate at the bottom of the pit lakes, leaving a deep clean freshwater layer overtop. The freshwater and porewater layers will not mix under normal conditions, effectively sealing the processed kimberlite and related porewater very deep in the lake. After re-filling the pits with lake water, DDMI will monitor the water quality in the pit lakes to verify that the top 40 meters of the water column is protective of fish, people and wildlife. Once near surface water quality has been confirmed to be safe, these pit lakes will be reconnected to Lac de Gras by creating several gaps in the dikes, allowing fish and water to move freely between the pit lake and Lac de Gras.

After several rounds of public reviews during the Wek'èezhìi Land and Water Board's (WLWB) preliminary screening of DDMI's PKMW application, the MVEIRB decided to conduct an environmental assessment (Review) on DDMI's proposed PKMW. As part of the Review process, DDMI conducted an environmental assessment of the PKMW, which was presented in a <u>Summary Impact Statement</u>.

Following a thorough public review of the PKMW, the MVEIRB, in its Report of Environmental Assessment and Reasons for Decision (REA), recommended that the PKMW be approved to proceed to the regulatory/permitting phase with specific terms and conditions, including the implementation of REA Measures 1 to 6, to mitigate potential adverse impacts of the PKMW on components of the environment considered important to stakeholders, including potentially affected Indigenous

Groups. The MVEIRB's recommendations were approved by the responsible minister(s) on June 4, 2020, allowing the PKMW to move to the permitting phase, which includes the continuation of the WLWB's Water Licence Amendment process for the PKMW.

DDMI then participated in the WLWB Water Licence Amendment Process and provided updated information about the PKMW to the WLWB, including responses to the WLWB's Information Requests, submission of a project development schedule of the Immediate Deposition Plan for Processed Kimberlite to the A418 Mine Working, submission of updated water quality modelling to fulfill REA Measure 3a (i.e. updating modelling to show whether water will meet water quality objectives defined in REA Measure 1 before depositing processed kimberlite into the pit(s) and underground), and submission of updates on DDMI's progress in its ongoing engagement with potentially affected Indigenous Groups to enable, among other things, the establishment of engagement protocols and the development of cultural water quality criteria for the PKMW.

After a thorough review process, including a Public Hearing, the WLWB, on April 28, 2021, sent its recommendations, including a Draft Amended Water Licence, to the Responsible Minister for approval of the PKMW. However, DDMI notes that ministerial approval of the Water Licence Amendment for the PKMW does not mean that DDMI can unconditionally proceed with PKMW, but rather sets out the conditions which, if met, will allow DDMI to proceed in a way that the WLWB is comfortable will be protective of the environment and future cultural use.

DDMI is of the opinion that, with the implementation of the MVEIRB's REA Measures, PKMW-related conditions in the Draft Water Licence Amendment submitted by the WLWB to the Responsible Minister for approval, and adaptive management, informed by DDMI's ongoing engagement with potentially affected Indigenous Groups, the PKMW will not result in significant adverse impacts to components of the environment considered important to stakeholders, including potentially affected Indigenous Groups, and will be protective of future cultural use.

1. INTRODUCTION

1.1 Processed Kimberlite to Mine Workings Project Background

Diavik Diamond Mines (2012) Inc.'s (DDMI) Processed Kimberlite to Mine Workings Project (PKMW) involves the deposit of processed kimberlite (PK) in the form of a slurry into one or more of two underground and/or open mine workings (A418 and A154) located at the Diavik Diamond Mine beginning in late 2021. Based on the current mine plan, A418 is the preferred and likely option and A154 is the alternate. The A21 mine working was removed from consideration during the Mackenzie Valley Environmental Impact Review Board's (MVEIRB) Review of the PKMW.

Most water deposited as part of the PK slurry will be pumped out of the pit, but some of this "porewater" will remain on top of the PK. DDMI will then add freshwater from Lac de Gras overtop of the PK in the pits to create a deep pit lake where stable layers of water will form naturally, isolating the PK from the surface environment. Over one to two years, this porewater will concentrate at the bottom of the pit lakes, leaving a deep clean freshwater layer overtop. The freshwater and porewater layers will not mix under normal conditions, effectively sealing the PK and related porewater very deep in the lake. After re-filling the pits with lake water, DDMI will monitor the water quality in the pit lakes to verify that the top 40 meters of the water column is protective of fish, people and wildlife. Once near surface water quality has been confirmed to be safe, these pit lakes will be reconnected to Lac de Gras by creating several gaps in the dikes, allowing fish and water to move freely between the pit lake and Lac de Gras.

As part of the process to gain required approvals to proceed with the PKMW, DDMI, on June 1, 2018, submitted an application to the Wek'èezhìi Land and Water Board (WLWB) to amend the Water Licence (WL2015L2-0001) for the Diavik Diamond Mine to include the proposed activities, after pre-application engagement with various stakeholders, including Indigenous Groups. DDMI notes that it did not receive opposition from communities or regulators during the initial engagement phase on the project concept prior to submission of an application for the PKMW to the WLWB. In general, what we heard was support to "put it (processed kimberlite) back where it came from" as long as it could be done in an environmentally safe manner (see Traditional Knowledge Panel Session Report – Options for Processed Kimberlite; PR #85).

After several rounds of Information Requests and a Technical Session during the WLWB's preliminary screening of the application, on February 19, 2019, the

MVEIRB decided, on its own motion as per applicable provisions of the Mackenzie Valley Resource Management Act, to conduct an environmental assessment (EA or Review) on DDMI's proposed PKMW. As part of the MVEIRB review process, DDMI conducted an environmental assessment of the PKMW, which was presented in a Summary Impact Statement. The Summary Impact Statement focused on the potential for the PKMW to adversely impact the following Valued Components selected the MVEIRB, in consultation with potentially affected Indigenous Groups and other stakeholders, during the scoping phase of the EA:

- water quality and quantity;
- cultural use of the area;
- fish and fish habitat; and
- other wildlife (specifically caribou, aquatic and migratory birds, and species at risk).

Following a thorough public review of the PKMW, the MVEIRB, in its Report of Environmental Assessment and Reasons for Decision (REA), recommended that the PKMW be approved to proceed to the regulatory/permitting phase with specific terms and conditions, including the implementation of REA Measures 1 to 6, to mitigate potential adverse impacts of the PKMW on the Valued Components. On June 4, 2020, the responsible minister(s) subsequently approved the MVEIRB's recommendations that the PKMW be allowed to advance to the permitting phase, which includes a recommencement of the WLWB's Water Licence Amendment process for the PKMW.

1.2 Post-EA Regulatory Process Update

Following the responsible minister(s) decision that the PKMW be allowed to proceed to the permitting phase, the WLWB recommenced the Water Licence Amendment Process for the PKMW with the issuance of an <u>Information Request</u> (IR) to DDMI on June 5, 2020 to, among other things, address the MVEIRB's REA Measures 1 to 6.

In summary, the WLWB requested that DDMI provide the following information to address the IR:

 A summary of the PKMW Project, including the proposed activities, infrastructure, and proposed timelines for the Project.

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- Status update for all commitments made throughout the EA process.
- A description of proposed changes, with rationale, to conditions in the Diavik Water Licence W2015L2-0001 for consideration in the Water Licence Amendment Process for the PKMW Project.
- An updated Engagement Plan that meets the requirements for "additional and more effective engagement with potentially affected Indigenous communities" as outlined in REA Measure 5.
- Draft cultural-use criteria developed as per the requirements of Measure 2 of the REA for determining if water in the pit lake(s) is acceptable for cultural use.
- Updated water quality modelling results.

DDMI subsequently addressed the information requested by the WLWB in a series of submissions during the post-EA Water Licence Amendment Process, including a project development schedule of the Immediate Deposition Plan for PK to the A418 Mine Working for the WLWB approval (DDMI Response to WLWB IR Attachment #1, September 17, 2020).

During the post-EA Water Licence Amendment Process, DDMI requested that the WLWB complete the Amendment of Water License (W2015L2-0001) incorporating as appropriate the MVEIRB REA Measures and necessary revisions and/or additions of Conditions to enable deposition of PK in mine workings as outlined in DDMI's comments and recommendations on the draft Water Licence (DDMI Response to WLWB IR Attachment #2, October 16, 2020). DDMI stated its preference for general Conditions that allow both DDMI, the WLWB and other stakeholders to adapt the application of the License to a variety of situations that can arise. DDMI requested that the WLWB approve the water quality modelling update (REA Measure 3a) and related Independent Review Panel (IRP) review (REA Measure 4) concurrent with the Water License Amendment. DDMI also requested that only Water Licence Conditions related to the PKMW proposal be included in the updated Licence.

Following a thorough review process, including a Public Hearing, the WLWB, on April 28, 2021, submitted its recommendations, including a Draft Amended Water Licence, to the Responsible Minister for approval of the PKMW (WLWB

Recommendation for Approval of Type A Water Licence and WLWB Reasons for Decision).

DDMI notes that the post-EA Water Licence Amendment Process for the PKMW has, with some exceptions, generally aligned with the <u>Work Plan</u> for the PKMW Project issued by the WLWB on October 2, 2020.

DDMI continues to engage the following potentially affected Indigenous Groups in the post-EA permitting process, including in the development of criteria for determining if water in the pit lake(s), following PK deposition, will be acceptable for cultural use:

- Deninu Kue First Nation (DKFN)
- Fort Resolution Métis Council (FRMC)
- Kitikmeot Inuit Association (KIA)
- Łutsel K'e Dene First Nation (LKDFN)
- North Slave Métis Alliance (NSMA)
- Northwest Territory Métis Nation (NWTMN)
- Tłycho Government (TG)
- Yellowknives Dene First Nation (YKDFN)

Summary tables of DDMI's implementation of the REA Measures and DDMI Commitments are appended to this report as Appendix A and B, respectively.

2. REA MEASURES IMPLMEMENTATION

This section presents an update on DDMI's implementation of the Measures in the MVEIRB's Report of Environmental Assessment and Reasons for Decision (REA) approved by the Responsible Ministers.

2.1 REA Measure 1: Diavik will meet water quality objectives at closure

DDMI has completed the first updated water quality modelling and review with the WLWB appointed Independent Review Panel (IRP). The outcomes of the updated

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water quality modelling and IRP review were discussed at length over the three (3) day Public Hearing on December 16 – 18, 2020 as part of the WLWB Water Licence Amendment Process for the PKMW.

Processed Kimberlite (PK) deposition will be focused within an extremely deep and small area of Lac de Gras (LDG). Recognizing this, model evaluations have revolved around predictions of water quality in the surface 40 meters of a pit lake, effects resulting from water exchange with LDG and potential broader impacts related to these effects

The key result of this new modelling was that the water quality in the A418 pit lake surface 40 meters remained below the Aquatic Effects Monitoring Program (AEMP) benchmarks over the long term.

DDMI has proposed a comprehensive Surveillance Network Program (SNP) for the A418 pit following both pit filling with water from LDG and following dike breaching, and a complementary PK monitoring program adaptively managed within the Processed Kimberlite Containment (PKC) Plan. In summary, the program focuses on:

- Monthly depth bioprofiles through the full depth of the water column using a multi-probe intended to measure the development and stability of the chemocline supplemented by quarterly water quality sampling to get initial information on water quality within the flooded pit.
- Intensive water quality sampling around 75 samples distributed over a 2D transect of the A418 pit lake to obtain a comprehensive understanding of the pit water quality prior to dike breaching.
- Monitoring of the volume in cubic metres of fine and coarse fractions of Processed Kimberlite disposed of in the Mine Workings on an annual basis.
- Characterization of the consolidation properties and pore water quality of the Processed Kimberlite deposited in the Mine Workings.
- If additional sampling and analysis is identified as necessary to validate assumptions, predictions, or meaningfully improve accuracy of predictions details will be proposed within the PKC Plan.

A summary table of DDMI's implementation of the EA Measures is included in Appendix A.

2.2 REA Measure 2: Diavik will work collaboratively with Indigenous groups to develop criteria for determining water in the pit lake(s) is acceptable for cultural use

DDMI has advanced, but not yet completed, its engagements with Indigenous Groups (IG) around establishment of engagement protocols and cultural water quality criteria.

DDMI's original intent was to have completed engagement with all IGs regarding cultural water quality criteria by this time. A combination of COVID-19 related restrictions and IGs' availability/capacity has delayed this work. DDMI did complete a Traditional Knowledge (TK) Panel Session in 2019 specifically on this topic that resulted in some specific recommendations around reconnection criteria (DDMI Traditional Knowledge Panel Session #12, Options for Closure, September 12-16, 2019). DDMI is using the TK Panel recommendations, combined with learnings from the DDMI Community Based Monitoring Fish Camps, as a starting point for engagement with IGs.

DDMI is not currently in a position to make a submission recommending criteria for consideration by the WLWB because engagement with IGs is ongoing. From the engagement completed to date we are hearing general support for the concepts recommended by the TK Panel. DDMI would like to thank NSMA, KIA, LKDFN, and TG for the meaningful engagement to date on developing criteria for determining water in the pit lake(s) is acceptable for cultural use. DDMI looks forward to continued engagement with these and other potentially affected Indigenous groups to address Measure 2 of the MVEIRB REA for the PKMW.

DDMI notes that the Draft Amended Water Licence submitted by the WLWB to the Responsible Minister for approval of the PKMW (<u>WLWB Recommendation for Approval of Type A Water Licence</u>) includes conditions requiring the advancement and/or completion of specific aspects of the Project, including the establishment of criteria for determining water in the pit lake(s) is acceptable for cultural use, prior to commencement of the construction phase of the PKMW, which aligns with the MVEIRB's REA for the PKMW.

A summary table of DDMI's implementation of the EA Measures is included in Appendix A.

2.3 REA Measure 3: Diavik will update modelling periodically to show whether water in the pits and Lac de Gras will meet the water quality objectives

To fulfill REA Measure 3a (updating modelling to show whether water will meet water quality objectives defined in REA Measure 1 before depositing processed kimberlite into the pit(s) and underground), as part of re-initiating the Water Licence Amendment, DDMI updated the water quality modelling a third time to meet the requirements of approval before depositing processed kimberlite into the pit(s) and underground. The modelling focused exclusively on the A418 mine area as the preferred immediate deposition area.

This model update was intended to much more accurately represent the most up to date PK deposition quantities and consolidation properties, the mine flooding sequence and Lac de Gras (LDG) reconnection plans and long-term exchange with LDG. Wherever reasonable, this model update also replaced previous model simplifying assumptions (e.g. site runoff negligible and excluded) with new modelled processes (e.g. daily site runoff loads to pit lake based on closure chemical and water balance). This complex model framework included: 1) consolidation modelling to estimate the rate of PK consolidation (porewater release) over 200 years; 2) GoldSim volume and mass balance modelling to demonstrate initial conditions in the pit lake; and 3) long-term two-dimensional (2D) CE-QUAL-W2 (W2) modelling to demonstrate vertical movement of PK porewater in the pit lake linked with a threedimensional (3D) MIKE3 flexible mesh modelling to simulate effects into and across LDG. This model framework was subjected to over thirty (30) sensitivity analysis runs intended to simulate the full range of plausible scenarios. The updated predictions of this model are considered sufficiently accurate to inform the necessary internal and external decisions at the current project stage gate.

The key result of this new modelling was that the water quality in the A418 pit lake surface 40 meters remained below AEMP benchmarks over the long term.

At this time, DDMI is confident that the current model is the best reasonable prediction of future conditions based on all the information available and believes that the range of completed sensitivity analysis include any reasonable best or worst case which should also be considered, and that no sensitivity results indicated a significant change to long-term conditions. Based on completed sensitivity results, DDMI believes that model iteration 3 cannot be materially updated until new information is available after the completion of PK deposition. Any new data collection prior to deposition will have no practical application or value to adaptively manage the PKMW given all potential results are expected to fall within the range of

current sensitivity results which all demonstrated a stable chemocline at a depth of greater than 200 meters. DDMI would like to highlight that the conclusions drawn from model iteration 3 did not meaningfully change in comparison to model iteration 1 and 2.

A summary table of DDMI's implementation of the EA Measures is included in Appendix A.

2.4 REA Measure 4: Diavik will establish an independent review panel for water quality modelling

The MVEIRB Measure 3 requires water quality modelling to be periodically updated and reviewed by a the WLWB-approved Independent Review Panel (IRP) as per requirements of REA Measure 4.

The Terms of Reference for the IRP was approved by the WLWB on September 23. 2020 and the panel members were appointed on July 29, 2020. Four (4) virtual meetings were held with the IRP between August 20 and October 1, 2020 to present, review and revise the water quality modelling. DDMI chose to make the meetings open to the public to create a more inclusive and transparent technical review process with opportunities for questions from the public to the IRP. DDMI believes this approach was uniquely successful in allowing interested parties to follow the process and participate as witnesses. DDMI submitted its final report on the updated water quality modelling on October 16, 2020 and as per the Terms of Reference the IRP provided its final report on October 15, 2020. This final report represented the completion of Panel duties related to the first of three (3) independent modelling reviews and it is DDMI's view that the updated water quality modelling and IRP review conform with requirements of the MVEIRB Measures 3a and 4. DDMI notes that this water quality modelling update and IRP review is just the first of three (3) required by the MVEIRB Measure 3. The WLWB Public Hearing for Water Licence Amendment was held between December 16 – 18, 2020 and included participation by the IRP as expert witnesses to explain and be questioned on the outcome of their Final Report. This exchange included three (3) days of extensive cross examination of the IRP by all interested parties. On the final day of the Public Hearing the IRP confirmed that as a result of the extensive discussions, the IRP had not identified the need to make any changes to their Final Report which concluded that DDMI's modelling was appropriate and that the software used was of sufficient quality and the IRP confirmed they had no objections with how DDMI proposed to implement the twelve (12) Recommendations included in the IRP's Final Report, most of which related to future data collection to better understand the potential range of

uncertainties and inform subsequent model updates and inform adaptive management approaches.

The overarching review conclusions of the IRP were as follows (IRP Final Report page 26):

- 1. The modeling effort put forward to examine the long-term water quality in pit A418 under the Processed Kimberlite to Mine Workings scenario is appropriate and that the modeling software used are of sufficient quality.
- 2. The base case results of the updated model (which includes previously expressed recommendations from the Panel) may be interpreted to show that water quality in the upper 40 m of pit A418 are not expected to exceed the AEMP water quality guidelines.
- 3. Sufficient sensitivity runs have been completed to support the conclusion that water quality in the upper 40 m of A418 is unlikely to be exceeded under anticipated variability in forcing possible upset conditions.

A summary table of DDMI's implementation of the EA Measures is included in Appendix A.

2.5 REA Measure 5: Diavik will conduct additional and more effective engagement with potentially affected Indigenous communities

DDMI has advanced its engagements with Indigenous Groups (IG) to inform/refine the PKMW design and implementation. As noted in Section 2.2, a combination of COVID-19 related restrictions and IGs' availability/capacity has delayed progress on engagement; however, DDMI continues to collaborate with IGs' to identify approaches for meaningful engagement on the PKMW despite the current constraints.

A summary table of DDMI's implementation of the EA Measures is included in Appendix A.

2.6 REA Measure 6: Adaptive management of cultural impacts

To mitigate significant cumulative adverse cultural impacts of the PKMW, the MVEIRB requires the Government of the Northwest Territories (GNWT) engage and work with Indigenous intervenors, and the communities they represent, to monitor

and adaptively manage adverse impacts on cultural well-being from the PKMW, in combination with the Diavik Mine and other diamond mining projects.

Whiles the implementation of REA Measure 6 is the responsibility of the GNWT, DDMI recognizes that its support and that of the other diamond mining projects and operations in the region will enable the GNWT achieve the objectives of this measure. Hence, DDMI will provide information to the GNWT as needed to support the implementation of this measure.

3. DIAVIK COMMITMENTS

DDMI has completed or advanced the implementation of some its commitments made during the PKMW EA such as updates to water quality modelling and engagement with stakeholders, including potentially affected Indigenous Groups, to inform project design and implementation. However, DDMI notes that a majority of its commitments will apply prior to and/or during the construction, operation, and closure phases of the PKMW Project, as it is contingent on receipt of ministerial approval of the Draft Water Licence Amendment submitted by the WLWB to the Responsible Minister on April 28, 2021.

A summary table of DDMI's implementation of its EA Commitments is included in Appendix B.

4. CONCLUSION

DDMI continues to engage potentially affected Indigenous Groups to refine project design, including the Construction, Operation, Closure and Post-Closure Phases of the PKMW Project. DDMI also continues to implement its 3-tiered approach to updating water quality modelling prior to the next required phases of the PKMW Project approval: 1) prior to commencing deposition as part of the Processed Kimberlite Containment in Mine Working Design Report (including an Independent Review of predictions); 2) prior to pit filling with Lac de Gras water (incorporating asbuilt conditions); and 3) after pit filling but before dike breaching (to allow calibration of model inputs and assumptions).

DDMI notes that ministerial approval of the Water Licence Amendment for the PKMW does not mean that DDMI can unconditionally proceed with PKMW, but rather sets out the conditions which, if met, will allow DDMI to proceed in a way that the WLWB is comfortable will be protective of the environment and future cultural use.

Diavik is of the opinion that, with the implementation of the MVEIRB's REA Measures, PKMW-related conditions in the Draft Water Licence Amendment submitted by the WLWB to the Responsible Minister for approval, and adaptive management, informed by DDMI's ongoing engagement with potentially affected Indigenous Groups, the PKMW will not result in significant adverse impacts to water quality and quantity; cultural use of the area; fish and fish habitat; and other wildlife (specifically caribou, aquatic and migratory birds, and species at risk).



APPENDIX A

Table of PKMW EA Measures Implementation Status

	Measure	Party Responsible	Actions Taken During Reporting Period	Reference/Applicable Regulatory Documents
Measure 1: Diavik will meet water quality objectives at closure	To prevent significant adverse impacts on the cultural use of Lac de Gras, Diavik will design and operate the Project so that water in at least the top 40 meters of the pit lake(s) at closure and post-closure meets the following objectives: Water quality objective 1: safe for people, aquatic life, and wildlife Water quality objective 2: suitable for cultural use (see Measure 2) Diavik will not put processed kimberlite into the pits until it	DDMI	In 2020 and 2021, Diavik Diamond Mines (2012) (DDMI) advanced engagements with Indigenous Groups around cultural water criteria (see Measure 2) and engagement protocols (see Measure 5). DDMI's engagement with stakeholders, including potentially impacted Indigenous Groups, to inform the establishment of water quality criteria regarding cultural use is ongoing. Following the MVEIRB Review of the PKMW, DDMI updated water quality Model Iteration 3 to meet requirements of REA Measure 3a (Stage 1: before depositing processed kimberlite into the pit(s) and underground) with a focus on the A418 mine workings as the preferred location for immediate deposition. The key results of the updated modelling was that water quality in	October 16, 2020 DDMI Response to the WLWB Information Request Attachment #2 re: PKMW Post EA Information Package — Additional Information Section 3.2 of PKMW Project Summary as part of DDMI Partial Response to the WLWB Information Request Re: Water License Amendment Request for the Deposition of PK into Mine Working
	demonstrates through updated modelling (see Measure 3a) that water in the pit lake(s) will meet these objectives. Diavik will neither partially nor fully reconnect the pit lake(s) to Lac de Gras until it demonstrates through updated modelling (see Measure 3c) and monitoring that water in the pit lake(s) will meet these objectives. Diavik will update all relevant monitoring plans and management program to ensure these objectives are met, including updating the Aquatic Effects Monitoring Program Response Framework to include action levels, triggers for response and potential mitigation options. The Wek'èezhìı Land and Water Board will review and approve any updates to plans required under the water licence and land use permit before processed kimberlite is put into the pit(s) and underground.		the top 40 m of A418 pit lake remained below AEMP benchmarks (i.e. safe for people, aquatic life, and wildlife) over a 200-year period (see Measure 3). DDMI submitted its final report on the updated water quality modelling to the WLWB on October 16, 2020, as part of the post-EA Water Licence Amendment Process and is awaiting ministerial approval of the WLWB's recommendation that the PKMW Project be allowed to proceed. Model Iterations 4 (i.e. Stage 2: before filling pit(s) with Lac de Gras water) and Model Iteration 5 (i.e. Stage 3: before reconnecting pit(s) and Lac de Gras) are anticipated to be completed in years 2025+ (see Measure 3). Proposed updates to DDMI monitoring and management plans to inform monitoring and mitigation measures for the PKMW Project were provided in Section 3.2 of the Project Summary provided on September 17,2020 as part of DDMI's response to the WLWB's Information Request issued to DDMI as part of the post-EA Water Licence Amendment Process.	
Measure 2: Diavik will work collaboratively with Indigenous groups to develop criteria for determining water in the pit lake(s) is acceptable for cultural use	Diavik will develop clear, measurable, and meaningful criteria to determine if water is suitable for cultural use (see Measure 1, water quality objective 2). Diavik will work directly, in a culturally appropriate manner, with Traditional Knowledge holders and other experts identified by Indigenous intervenors in developing these criteria. The Wek'èezhìı Land and Water Board will review and approve these criteria before Diavik puts processed kimberlite into the pit(s) and underground. Diavik will support involvement of communities represented by the Indigenous intervenors to develop and implement long-term monitoring, informed by Traditional Knowledge, of the pit lake(s) using the criteria developed above. These programs will be in place before reconnection occurs.	DDMI	In 2020, DDMI's in-community and in-person stakeholder engagement efforts for the PKMW were impacted by the COVID-19 pandemic; hence, the majority of stakeholder engagements were completed by telephone and videoconference. In 2020, DDMI advanced engagements with Indigenous Groups (IG) around water quality criteria with respect to cultural use. DDMI hosted virtual workshops with the: NSMA (September 22-23, 2020) KIA (October 13,16, 2020) DDMI participated in a TG led workshop on November 5, 2020 to develop water quality objectives with culturally relevant criteria for Diavik.	

			DDMI continues to advance its engagement with these IGs and other potentially impacted IGs to inform the development of water quality criteria related to cultural use. See Measure 6 regarding DDMI support for long-term monitoring program.	
Measure 3: Diavik will update modelling periodically to show whether water in the pits and Lac de Gras will meet the water quality objectives	To mitigate significant adverse impacts on the cultural use of Lac de Gras, Diavik will update its modelling to show whether water will meet water quality objectives defined in Measure 1 at the following stages of the Project: a) Before depositing processed kimberlite into the pit(s) and underground b) Before filling the pit(s) with water from Lac de Gras: This update will include the detailed conditions of the processed kimberlite in the pit(s) and the planned pore water layer depth. c) Before reconnecting (partially or fully) the pit lake(s) containing processed kimberlite to Lac de Gras: This update to the model will include real data from monitoring of the pit lake(s) to calibrate the model predictions. These updates will address deficiencies identified by model review and include all available and relevant input data, to better understand (at minimum): i. consolidation and behaviour of fine processed kimberlite and extra-fine processed kimberlite in the pit lake(s) ii. water quality in the pit lake(s) iii. long-term stability of meromixis in the pit lake(s) iv. spatial extent of effects on water quality in Lac de Gras Diavik will update all relevant monitoring plans and management programs under the supervision and authority of the Wek'èezhìı Land and Water Board to ensure they are collecting all necessary input information for updated modelling. The Wek'èezhìı Land and Water Board will review and approve all plans for updated modelling.	DDMI	On October 16, 2020, DDMI submitted to the WLWB an updated Water Quality Model Iteration 3 for Stage 1 (i.e. water quality before processed kimberlite deposition) with a focus on the A418 Mine Workings as a part of DDMI's Immediate Deposition Plan. Results of this updated modelling indicated that water quality in the top 40 m of the A418 pit lake remained below AEMP benchmarks over a 200-year period. DDMI is currently awaiting the WLWB's approval of current water quality modeling update. Model Iterations 4 and 5 i.e. Stage 2: before filling pit(s) with water from Lac de Gras) and Stage 3: before reconnecting (partially or full) the pit lake(s) containing processed kimberlite to Lac de Gras) are scheduled to coincide with applicable project phases in year 2025+ and will undergo Independent Review Panel (IRP) and WLWB approval.	October 16, 2020 Stage 1 updated modelling DDMI Partial Response to the WLWB Information Request Re: Water License Amendment Request for the Deposition of PK into Mine Working
Measure 4: Diavik will establish an independent review panel for water quality modelling	To prevent significant adverse impacts on cultural use of Lac de Gras, Diavik will establish and fund an independent review panel for the updated modelling described in Measure 3. Diavik will develop the terms of reference for this panel for approval by the Wek'èezhìı Land and Water Board. The Wek'èezhìı Land and Water Board will engage Diavik and intervenors to identify and select panel members with appropriate expertise in: • hydrodynamic water quality modelling, and • extra-fine processed kimberlite or clay hydrodynamics.	DDMI	DDMI submitted the Terms of Reference (ToR) on March 26, 2020 along with six (6) Independent Review Panel (IRP) member candidates with expertise in hydrodynamic water quality monitoring and extra-fine processed kimberlite or clay hydrodynamics. On June 8, 2020 the WLWB released its decision to approve the ToR and provided Parties an opportunity to recommend additional IRP member candidates. The final list of Panel members were selected by the WLWB on July 29, 2020.	Diavik Mines PKMW Hydrodynamic and Water Quality Monitoring Independent Review Panel Final Report PKMW Public Hearing IRP Presentation October 16, 2020 Stage 1 updated modelling DDMI Partial Response to the WLWB Information Request Re: Water License

	The terms of reference and panel member selection will be approved in a timeframe that leaves adequate time for it to carry out the tasks below. For each modelling update defined in Measure 3, the panel will review and make recommendations on: a) model selection and design, b) model input data, assumptions, and processes, c) monitoring requirements for informing the modelling process, and d) model results.	In 2020, DDMI hosted four (4) open to public meetings with the IRP: August 20 (Panel introduction), September 10 (Diavik Modelling presentation), September 24 (Panel initial findings) and October 1 (Draft Review discussion) On October 15, 2020, the IRP provided a final report to the WLWB that detailed the IRP's review and conclusions regarding DDMI's PKMW Hydrodynamic and Water Quality modelling. The updated modeling and IRP review and conclusions were discussed over the three-day Public Hearing, December 16-18, 2020, hosted by the WLWB as part of the post-EA Water	Amendment Request for the Deposition of PK into Mine Working
	The panel will provide reports to the Wek'èezhìı Land and Water Board for inclusion on its public registry. Diavik will report to the Wek'èezhìı Land and Water Board and communities about how it responded to panel recommendations. If Diavik does not accept, or modifies, panel recommendations, it will explain why and provide reasons. The Wek'èezhìı Land and Water Board will consider panel reports and Diavik's responses when reviewing and approving any plans for updated modelling.	Licence Amendment Process. The IRP concluded that the modelling conducted by DDMI is adequate for the purposes of predicting water quality associated with the deposition of processed kimberlite (PK) in the A418 mine workings and that DDMI's prediction that water quality in the top 40 m of A418 pit, following PK deposition, will remain below AEMP benchmarks is reasonable. DDMI is awaiting WLWB's approval of the updated water quality modelling submitted to the WLWB as part of the post-EA Water Licence Amendment Process.	
Measure 5: Diavik will conduct additional and more effective engagement with potentially affected Indigenous communities	Diavik will conduct additional and more effective engagement with potentially affected Indigenous communitiess9 to accomplish Measures 2, 3, and 4 and prevent significant adverse impacts on cultural use of Lac de Gras from this Project. Diavik's engagement for this Project will: a) include all potentially affected Indigenous communities, b) ensure potentially affected Indigenous communities' access to meaningful and plain language results from monitoring programs, c) include Traditional Knowledge in monitoring plans and management programs, d) enhance opportunities for potentially affected Indigenous communities to provide feedback directly to Diavik about the Project, its potential impacts, and mitigation options, and, e) include reporting back to potentially affected Indigenous communities on how Diavik acted (or reasons for not acting) in response to feedback from communities.	DDMI Also see Measures 2 and 3. In 2020, DDMI's in-community and in-person engagement efforts were impacted by the COVID-19 pandemic; hence, the majority of DDMI's engagements with potentially impacted Indigenous Groups were completed by telephone and videoconference. DDMI engaged with potentially affected Indigenous communities and organizations, identified during the PKMW EA, to develop engagement protocols for the PKMW Project. DDMI has established or is in the process of establishing engagement protocols with the following Indigenous Groups: KIA (August 18, 2020) TG (September) NSMA (July 30, 2020) YKDFN (ongoing) LKDFN (July 10, 2020) DKFN (ongoing) NWMN (ongoing)	DDMI Engagement Plan, Version 3.1 approved October 22, 2020.
	As part of its engagement for this Project, Diavik will collaborate with each potentially affected Indigenous community individually to develop meaningful engagement protocols that are culturally	DDMI submitted Engagement Plan Version 3.0 to the WLWB on March 6, 2020 that was subsequently reviewed by the WLWB on May 8, 2020 with additional WLWB Directives for the next version of the Plan.	

	appropriate to each group. At a minimum, each of these	On July 28, DDMI submitted Engagement Plan Version 3.1 that addressed the	
	engagement protocols will describe:	WLWB Directives outlined by the WLWB in its May 8, 2020 decision and was	
	i. how often Diavik will engage to discuss the Project,	approved by the WLWB on October 22, 2020. As noted by the WLWB's	
	ii. an updated contact list for each potentially affected	October 2020 approval of Engagement Plan Version 3.1, the WLWB will	
	Indigenous community, relevant to specific purposes for	consider how DDMI has addressed Measure 5 through the PKMW Type A	
	engagement (listing contacts such as community	Water Licence Amendment Process.	
	government staff, technical consultants, Traditional		
	Knowledge advisors, community leadership), and,	DDMI plans to submit a PKMW Engagement Plan to the WLWB in 2021 as per	
	iii. preferred engagement methods, frequency, and triggers.	Schedule 2 Condition 1 of amended Water Licence (W2015L2-0001) that is	
		currently awaiting ministerial approval. Ministerial approval is expected by	
	Diavik will submit an updated engagement plan incorporating this	June or July 2021.	
	measure for review and approval by the Wek'èezhiı Land and		
	Water Board with sufficient time for the engagement to inform		
	Measures 2-4.		
Measure 6: Adaptive	To mitigate significant cumulative adverse cultural impacts of the	GNWT DDMI is not responsible for the implementation of Measure 6. However,	Not applicable.
management of cultural	Project, the Government of the Northwest Territories will engage	DDMI will provide information to the GNWT as needed to support the	
impacts	and work with Indigenous intervenors, and the communities they	implementation of this measure.	
	represent, to monitor and adaptively manage adverse impacts on		
	cultural well-being from the Project, in combination with the		
	Diavik Mine and other diamond mining projects.		
	The Government of the Northwest Territories will support the		
	Indigenous intervenors to develop community-specific cultural		
	well-being indicators to monitor and evaluate cultural well-being		
	impacts associated with the Project, in combination with other		
	diamond mining projects.		
	The Government of the Northwest Territories will meet with		
	potentially affected Indigenous communities 61 within one year of		
	Ministerial approval of this Report of Environmental Assessment,		
	and annually afterwards (or as agreed to by the Indigenous		
	Intervenors), to:		
	a) prioritize cultural well-being impacts related to the Project and		
	other diamond mines, as identified by communities and by the		
	Government of the Northwest Territories,		
	b) evaluate the effectiveness of Government of the Northwest		
	Territories programs or other programs to address these identified		
	impacts, and		
	c) discuss improvements to existing Government of the Northwest		
	Territories programs to mitigate identified impacts, new		
	Government of Northwest Territories programs, or support for		
	new community-based programs.		
	The Government of the Northwest Territories will submit an		
	annual progress report on the three items above to the		
	Indigenous intervenors, describing its engagement on and		
	adaptive management of cultural impacts, and the Government of		
	adaptive management of cultural impacts, and the Government of		

th	the Northwest Territories' plans to help address identified
in	mpacts.
l w	Wherever feasible, the Government of the Northwest Territories
sł	should coordinate and collaborate with Diavik and the other
d	diamond mining operators in the Northwest Territories when
ca	carrying out this measure.
0	Outcomes of this measure should be used, where relevant and
a	available, to inform work on other measures.



APPENDIX B

Table of Implementation Status for DDMI's Commitments in the PKMW EA

No	Subject	Source	Commitment	Phase	Link to REA Measure	2020 Status (as of June 5, 2020)
1	Follow-up and monitoring	Summary Impact Statement	Follow-up to verify the environmental effects predictions and effectiveness of mitigation is an important component of this Project and is summarized below:	All phases	Measures 1 and 3	This commitment is addressed in REA Measures 1 and 3 (see Appendix B).
			 Sample PK porewater to confirm constituent concentrations used inmodel Monitor the chemocline development and stability prior to breachingdike (Surveillance Network Program). Include visual monitoring by Traditional Knowledge Panel. Monitor water quality in the flooded mine workings following dikebreaching. Monitor water quality in Lac de Gras following re-connection of pitlake(s) to Lac de Gras. Adequately size breaches to optimize water circulation within theclosure water cap to meet water quality objectives; and Continue the AEMP in Lac de Gras (water quality, sediment, fish andinvertebrates within the water and sediment). 			
2	Timing of breaching of dikes	Summary Impact Statement	Breach dikes following receipt of monitoring results that show acceptable water quality (i.e., below AEMP benchmarks) within the pit lake(s).	Closure	Measures 1 and 3	Not completed. This commitment is addressed in REA Measures 1 and 3 (see Appendix B).
3	Decision-making process to isolate pit lakes from Lacde Gras	Summary Impact Statement	Close the breaches or isolate the pit lake from Lac de Gras if water quality is later determined to pose a risk to water quality, fish and fish habitat, caribou, humans or cultural land uses.	Closure and Post- closure	Measures 1,2 and 3	This commitment is addressed in REA Measures 1, 2 and 3 (see Appendix B).
4	Community engagement	Summary Impact Statement	Report findings back to Indigenous communities.	All phases	Measure 5	Ongoing. This commitment is addressed in REA Measure 5 (see Appendix B).
5	Follow-up andmonitoring	Summary Impact Statement	 In addition to continuation of the ongoing Aquatic Effects Monitoring Program (AEMP), DDMI will: Monitor water quality in the pit lakes after the mine workings are filled to determine when and if water quality parameters meet aquatic effects benchmarks. Monitor water quality, particularly TSS and TDS, in Lac de Gras at near-field, mid- field, and far-field areas during the breaching of the mine workings dikes. 	All phases	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B).
6	Follow-up andmonitoring	Summary Impact Statement	DDMI would also work with DFO and Indigenous Groups to identify any follow-up monitoring that may be necessary to adaptively manage water levels in Lac de Grasand flows in the Coppermine River during the pit infilling periods.	All phases	Measure 5	This commitment is addressed in the REA Measure 5 (see Appendix B).
7	Deposition method	Summary Impact Statement	Select a deposition scenario that predicts water quality in the pit lake(s) meets AEMPbenchmarks in the top 40m.	Operations	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B).
8	Fish interaction with pit lake(s)	Summary Impact Statement	Exclude fish from the pit lake(s) until the monitoring program shows that waterquality in the top 40 m of the pit lake(s) meets AEMP benchmarks.	Closure	Measure 1	To be completed. This commitment is addressed in REA Measure 1 (see Appendix B).
9	Freshwater withdrawal for pit infilling	Summary Impact Statement	Work with DFO and Indigenous Groups to finalize water withdrawal rates that will not significantly affect fish habitat in Lac de Gras or the Coppermine River.	Closure	Measure 5	Ongoing. This commitment is addressed in REA Measure 5 (see Appendix B)
10	Follow-up and monitoring	Summary Impact Statement	 In addition to continuation of the on-going Wildlife Monitoring Program, DDMI will monitor: Water quality in the pit lakes after the mine workings are filled to determinewhen and if water quality parameters meet aquatic effects benchmarks. Water quality, particularly TSS and TDS, in Lac de Gras at near-field, mid-field, and far-field areas during the breaching of the mine workings dikes. 	Operations and Closure	Measure 1	To be completed. This commitment is addressed in REA Measure 1 (see Appendix B). DDMI has a Wildlife Monitoring Program.

No	Subject	Source	Commitment	Phase	Link to REA Measure	2020 Status (as of June 5, 2020)
11	Wildlife interactions with pits/mine workings	Summary Impact Statement	Any wildlife observed in the mine workings will be removed prior to pit lake infilling in accordance with applicable regulations. In the case of peregrine falcon nests on the pit walls, recommended minimum buffer distances in applicable guidelines will be followed until the birds have fledged and left the nests.	Operations	No specific link to REA Measures	DDMI has a Wildlife Monitoring Program. An updated Wildlife Management and Monitoring Program will be established prior to the construction phase of the PKMW.
12	Water quality monitoring	Summary Impact Statement	Water quality monitoring will be used to assess potential changes in water concentrations of chemical constituents.	All phases	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B).
13	Wildlife monitoring	Summary Impact Statement	Wildlife monitoring to assess potential interactions of wildlife with potential contaminants.	All phases	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B). DDMI has a Wildlife Monitoring Program.
14	Wildlife deterrence	Summary Impact Statement	Wildlife deterrent techniques will be implemented as required to reduce interactions with contaminants, if necessary.	Construction, Operations, and Closure	Summary Impact Statement	Ongoing. DDMI actively deters wildlife from the mine site and has a strict waste management system in place to limit any wildlife attractions on site.
15	Engagement with Indigenous groups	Summary Impact Statement	DDMI will continue its engagement with stakeholders, including with the Participation Agreement groups and communities and other Indigenous groups to inform project design and execution.	All phases	Measures 2 and 5	Ongoing. This commitment is addressed in REA Measures 2 and 5 (see Appendix B).
16	Engagement with Indigenous groups	Summary Impact Statement	DDMI will continue to engage with potentially affected Indigenous groups throughthe TK Panel Sessions and other engagement activities to better understand Indigenous perceptions about the safety, quality, and health of Lac de Gras and identify practical strategies to address these concerns.	All phases	Measures 2 and 5	Ongoing. This commitment is also addressed in REA Measures 1 and 2 (see Appendix B).
17	Water quality monitoring	Summary Impact Statement	Water quality will be monitored to assess potential changes in concentrations of chemical constituents in comparison to acceptable criteria	All phases	Measures 1 and 2	This commitment is addressed in REA Measures 1 and 2 (see Appendix B).
18	Wildlife monitoring	Summary Impact Statement	Wildlife monitoring will assess potential interactions of wildlife with potential contaminants.	All phases	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B). DDMI has a Wildlife Monitoring Program.
19	Water quality management	Summary Impact Statement	Cover the PK and porewater in each mine working with a freshwater cap such thatwater quality in the top 40 m meets AEMP benchmarks	Operations and Closure	Measure 1	This commitment is addressed in REA Measure 1 (see Appendix B).
20	Water quality management	Summary Impact Statement	Breach dikes to connect the pit lakes to Lac de Gras once monitoring shows that water constituents in pit lakes are below Canadian Water Quality guidelines for the Protection of Aquatic Life (CCME 2019) and/or the Aquatic Environmental MonitoringProgram (AEMP) Effects Benchmarks	Closure	Measure 1	To be completed. Project still in permitting phase.
21	Wildlife management	Summary Impact Statement	Remove any observed wildlife from pit/dike areas before infilling in accordance withapplicable guidelines / regulations	Operations and Closure	No specific link to REA Measures	DDMI has a Wildlife Monitoring Program. An updated Wildlife Management and Monitoring Program will be established prior to the construction phase of the PKMW.
22	Wildlife monitoring	Summary Impact Statement	Monitor area for approaching wildlife during infilling	Operations and Closure	No specific link to REA Measures	DDMI has a Wildlife Monitoring Program. An updated Wildlife Management and Monitoring Program will be established prior to the construction phase of the PKMW.
23	Wildlife management	Summary Impact Statement	Employ deterrents as required to reduce risks to wildlife.	Construction, Operations, and Closure	No specific link to REA Measures	DDMI has a Wildlife Monitoring Program. An updated Wildlife Management and Monitoring

No	Subject	Source	Commitment	Phase	Link to REA Measure	2020 Status (as of June 5, 2020)
						Program will be established prior to the construction phase of the PKMW.
24	Stakeholder Engagement	Responses to Interventions	 Expanded engagement with non-signatory Indigenous groups DDMI undertakes extensive community engagement with signatory Indigenous Groups; however, DDMI accepts that more could be done to engage with Fort Resolution Metis Council (FRMC) – Northwest Territory Metis Nation (NWTMN) and Deninu Kue First Nation (DKFN). DDMI commits to meeting with each group annually to: Provide updates on the PK to Mine Working Project specifically but also on closure planning generally; Review recommendations made by the Traditional Knowledge (TK) Panel and DDMI's responses; and Consider any recommendations from FRMC/NWTMN and DKFN and provide written responses. 	All phases	Measure 5	Engagement with signatory and non-signatory Indigenous groups is ongoing.
25	Traditional Knowledge-based Closure Criteria	Responses to Interventions	Reconnection criteria to define culturally acceptable pit-lake conditions • DDMI recognizes the importance of the views of Indigenous Groups to the decision on whether to breach the pit lakes and re-join with Lac de Gras. • DDMI commits to working toward the development of acceptance criteria for re- connection that are TK-based. • DDMI will: i. Seek the TK Panel's permission to change the scope of the September 12-16, 2019 TK Panel session to instead develop recommended TK-based re- connection criteria; ii. Ask that the Environmental Monitoring Advisory Board (EMAB) facilitate the revision/support of the recommended TK-based criteria with the five (5) Indigenous Parties represented on EMAB; iii. Provide opportunity for Indigenous Groups that are not represented on EMAB to review and comment on TK-based criteria; iv. Submit the TK-based re-connection criteria to the Wek'èezhùi Land and Water Board (WLWB) for public review and approval as a closure criteria.	Regulatory/Permitting Stage	Measures 2 and 5	Actions, including cultural criteria workshops, are ongoing. This commitment is addressed in REA Measures 2 and 5 (see Appendix B).
26	Fish and Fish Habitat	Responses to Interventions	 Fish habitat off-setting plan With the implementation of proposed mitigation measures, residual environmental effects are not expected to significantly impact pit lake fish habitat, however DDMI acknowledges that some Indigenous Groups have still expressed concern about reconnecting the pit lakes to Lac de Gras. DDMI appreciates Fisheries and Oceans Canada's willingness to work with DDMI to consider alternative fish habitat off-setting plans should pit lake reconnection no longer be considered acceptable. DDMI commits to considering alternative off-setting plans that are reasonable, practical and provide fisheries benefits to Indigenous Communities. DDMI will advance alternative off-setting plans by February 1, 2020 if: i. There is a high likelihood that predicted pit-lake water quality conditions willnot meet TK-based pit-lake criteria for reconnection; or 	All phases	Measure 2	DDMI notes that alternatives to existing fish habitat offsetting plan are not being advanced currently as there is no indication water quality will not be acceptable. This commitment is addressed in REA Measures 2.

No Subject	Source	Commitment	Phase	Link to REA Measure	2020 Status (as of June 5, 2020)
		 ii. It is determined that TK-based acceptance of pit-lake reconnection can onlybe determined by visually inspecting the pit-lake making it not possible to confirm acceptability based on predicted water quality; or The MVEIRB determines that DDMI should not breach the dike and allowaccess to the pit-lake. 			
27 A21 Open Pit	Responses to Interventions	 Removal of A21 Open-Pit from review DDMI continues to advise that A418 is the preferred location at this time for PKdeposition to mine workings. DDMI accepts Interveners' recommendation to remove the A21 Open-Pit from consideration for processed kimberlite (PK) deposition in the current Review. DDMI believes it is prudent to continue to consider A154 to provide the maximum practical flexibility. Limiting the deposition location option to only the preferred A418 could result in an inability to adapt to changes in mine plans because of the long lead times inherent in permitting processes. 	Environmental Review Stage	Measure 1	Completed. Action associated with this commitment was concluded at the Environmental Review Stage of the PKMW Approval Process.
28 Water License conditions and Project Follow-up	Responses to Interventions	Onditions to be included in an amended water licence or as Follow-up measures DDMI has reviewed Interveners' recommended conditions, if the Project is to be approved by the MVEIRB. It is DDMI's view that most of these can be addressed as conditions to be included in an amended Water License. These include: a. Additional modelling of pit water quality. DDMI commits to providing updated modelling estimates: i. for WLWB approval prior to commencing deposition as part of the Processed Kimberlite Containment in Mine Working Design Report; ii. prior to pit filling with Lac de Gras water (incorporating as-built conditions); and iii. after pit filling but before dike breaching (to allow calibration of model inputs and assumptions). b. Independent Review of final model predictions. 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. c. Pit Lake monitoring – operations, after filling, after re-connection. DDMI has provided proposed monitoring programs for PK to Mine Workings. Interveners have provided monitoring recommendations that DDMI has reviewed and responded. DDMI believes there is sufficient alignment on the general scope of the proposed monitoring that they could be consolidated into monitoring conditions for an amended Water Licence. Mildlife management. DDMI has Standard Operating Procedures for deterring wildlife. DDMI commits to revising these to include wildlife deterrents during pit filling. DDMI will submit these to the Go	Regulatory/Permitting State and Pre- construction and Construction	Measures 1,3 and 4	Ongoing. Conditions included in amended water licence W2015L2-0001 awaiting ministerial approval.

No	Subject	Source	Commitment	Phase	Link to REA Measure	2020 Status (as of June 5, 2020)
			 In DDMI's view, the specific terms and conditions that will define the monitoring plans related to the PK to Mine Workings Project should be established by the WLWB through the Water Licence Amendment Process. The terms and conditions may include updates to existing environmental management and monitoring programs plans for the Diavik Diamond Mine. 			
29	Pre-deposition Water Quality Modelling	Hearing	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.	Pre-construction	Measures 1 and 3	This commitment is addressed in REA Measures 1 and 3 (see Appendix B).
30	Engagement Plan with Deninu Kue First Nation and the Fort Resolution Métis Council	Hearing	Diavik commits to developing an engagement plan with Deninu Kue First Nation and the Fort Resolution Métis Council, building on the commitment to meet annually	All phases	Measure 5	Ongoing. This commitment is addressed in REA Measures 2 and 5 (see Appendix B).
31	Indigenous Engagement – LKDFN	Post-hearing commitments	DDMI commits to continuing to engage with the LKDFN to identify alternative or complementary approaches to closure and post closure activities associated with the PKMW Project. As part of this commitment, DDMI intends to work with the TK Panel, Participation Agreement organizations and communities, and other Indigenous Groups toward the development of TK-based acceptance criteria for re-connection of the pit lake(s) to Lac de Gras at closure/post closure. These intended additional engagement activities will be reflected in the Engagement Plan for the Diavik Operations.	All phases	Measures 2 and 5	Ongoing. This commitment is addressed in REA Measures 2 and 5 (see Appendix B).
32	Indigenous Engagement – LKDFN	Post-hearing commitments	DDMI commits to updating the wildlife monitoring program for Diavik to include the PKMW Project to validate/confirm predictions about potential for wildlife-project interaction. The updated monitoring program will support site monitoring during operations to determine whether wildlife, including caribou and migratory birds, interact with pit(s)/mine workings during infilling and prior to stabilization of water quality.	Pre-construction, Construction, Operations, and Closure Phases	Measures 2 and 5	Ongoing. This commitment is addressed in REA Measures 2 and 5 (see Appendix B).
33	Wildlife Monitoring Program	Post-hearing commitments	DDMI commits to updating the wildlife monitoring program for Diavik to include the PKMW Project to validate/confirm predictions about potential for wildlife-project interaction. The updated monitoring program will support site monitoring during operations to determine whether wildlife, including caribou and migratory birds, interact with pit(s)/mine workings during infilling and prior to stabilization of water quality.	Pre-construction, Construction, Operations, and Closure Phases	No specific link to REA Measures	DDMI has developed and submitted an updated 2020 Wildlife Management and Monitoring Plan to applicable parties including the GNWT and EMAB on April 1, 2021. This Plan is consistent with the Government of Northwest Territories' Wildlife Management and Monitoring Plan (WMMP) Process and Content Guidelines and addresses this commitment. An updated Wildlife Management and Monitoring Program will be established prior to the construction phase of the PKMW.
34	Engagement on Potential for PKMW-Wildlife Interaction	Post-hearing commitments	DDMI commits to continuing to engage with the LKDFN to identify alternative or complementary approaches to limiting wildlife, including caribou, interaction with the PKMW Project during the operations phase.	Operations Phase	Measures 5	Ongoing. This commitment is addressed in REA Measures 5 (see Appendix B).