

Fort Resolution Métis Council

Final Submission

MVEIRB File No EA1819-01. Diavik Diamond Mine - Processed Kimberlite to Mine Workings



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Summary

Fort Resolution Métis Council (FRMC) represents the rights and interests of our Métis members in our traditional territory. The Diavik Diamond Mine overlaps with our territory, and Diavik Diamond Mine Inc's (Diavik, DDMI or the Proponent) proposed Processed Kimberlite to Mine Workings project poses potential impacts to FRMC cultural use and caribou within our territory. One of our key issues is to protect caribou and cultural values from these impacts so as to ensure our ability to exercise our Indigenous right to harvest caribou within our territory.

Commitments and measures presently proposed by DDMI are inadequate for mitigating cultural impacts, and we hold DDMI's conclusion that there are no significant cultural impacts associated with the project to be invalid. DDMI suggests that there will be no residual adverse effects from the project, but this conclusion fails to account for the historical and current contexts for caribou and culture within our territory. FRMC has reviewed the evidence since the filing of our intervention report and continues to have significant concerns with the project. Based on this review, we believe that the following should be required of DDMI as conditions for approval, should the Project be allowed to proceed as proposed. Please note that these are very similar to our pre-hearing recommendations, although some have had to be revised to requests of the Review Board because the Proponent has not committed to their integration into its Project planning in the interim:

- 1. The Review Board to find that there is already a pre-existing significant adverse cumulative effect on the Bathurst Caribou herd, and consider Project effects and make its decisions on whether the Project should be allowed to proceed and under what conditions, in light of this highly sensitive receiving environment.
- 2. As a condition of approval, the Proponent should be required to engage FRMC in a funded caribou ITK study prior to closure, with the results of the study included in filings for relevant regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB) and/or the Wek'èezh?i Renewable Resources Board.
- 3. As a condition of approval, the Proponent to update the Wildlife Management and Monitoring Plan, including Indigenous Traditional Knowledge from all Indigenous groups that harvest in the area on ways to mitigate, monitor, and adaptively manage impacts from changes to Project closure to wildlife including caribou.
- 4. As a condition of approval, the Proponent should be required to involve FRMC and other impacted indigenous groups in the development and implementation of a robust, community-based caribou-monitoring program specific to closure. The monitoring program should include, at minimum:



- a. Financial support;
- Training and employment of on-the-ground monitors from all impacted communities, including FRMC;
- c. Partnership with other governments, academics and communities;
- d. Reporting on the results of monitoring to governments, regulators, and indigenous groups that participated in the EA; and
- e. Multi-season and range level monitoring of the cumulative pressures on the Bathurst barren-ground caribou herd (e.g., predation, fire, and other impacts) that extends beyond the mine site.

The Indigenous monitoring program will include requirements for development of additional mitigations and offsetting measures for all stages of closure based on the observations of Indigenous monitors.

- 5. As a condition for approval, the Proponent should be required to conduct Indigenous Traditional Knowledge (ITK) informed sampling of caribou forage and a funded FRMC caribou ITK study highlighting changes over-time observed by FRMC knowledge holders and identifying culturally appropriate recommended measures to reduce existing Project and Cumulative Effects to caribou health.
- 6. As a condition for approval, the Proponent should be required to develop a community-based sampling program of caribou organ meat to track changes of caribou health overtime, and report results to the affected indigenous communities, Government of the Northwest Territories (GNWT), and as part of relevant regulatory filings with Wek'èezh?i Land and Water Board (WLWB) and or the Wek'èezh?i Renewable Resources Board.
- 7. The Proponent should be required to engage with the "non- signatory" parties like FRMC in a meaningful way during all subsequent regulatory phases of the Diavik closure process, and provide evidence to the WLWB of these efforts.
- 8. As a condition for approval, the Proponent should be required to engage all affected Indigenous groups in further ITK data collection to inform future closure planning, with evidence of these efforts and their outcomes reported to the permitting agency or agencies prior to those agencies making Project closure-related decisions. The Proponent will:
 - a. support the collection of Indigenous Traditional Knowledge related to traditional use, and compile it with information already acquired;



- thoroughly consider any Indigenous Traditional Knowledge that is made available, and where applicable, incorporate Indigenous Traditional Knowledge into Project closure design, mitigations, monitoring and adaptive management; and,
- c. do this in a culturally-appropriate way that respects applicable Indigenous Traditional Knowledge policies and protocols.
- 9. As a condition for approval, the Proponent should be required to complete outstanding Indigenous Traditional Knowledge and land use and occupancy studies as part of closure planning.
- 10. As a condition for approval, the Proponent should be required to commit to engaging FRMC in any future TK panel sessions and or any equivalent body established for the PK to Mine Workings Project.
- 11. As a condition for approval, the Proponent should be required to design, with input from affected Indigenous Groups, a follow-up program to verify the accuracy of impacts to culture. The follow-up program shall inform adaptive management and improve the effectiveness of the Proponent's mitigation of cultural impacts. As part of this follow-up program the Proponent will:
 - 1. engage with Indigenous groups that participated in the environmental assessment to identify cultural impacts, including cumulative impacts, from the Project;
 - 2. develop a framework with Indigenous groups for determining the acceptability of changes to perceived water quality and use;
 - 3. seek the input of those Indigenous groups on ways to strengthen the Proponent's cultural impact mitigation initiatives; and
 - 4. report annually to those Indigenous groups on the effectiveness of the Proponent's efforts to mitigate cultural impacts.

A detailed description of the Follow-up program to be included in filings for regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB)

- 12. As a condition of approval, the Proponent should be required to show evidence to the WLWB and GNWT that it is working with FRMC and other indigenous groups through workshops or other agreed to forums, to identify mitigation appropriate for preventing, reducing or compensating/offsetting harms to cultural use.
- 13. As a condition of approval, the Proponent should be required through the Water Licence process and approval of its final closure plan, to provide assurances that any potential



adverse impacts would not be significant, a thorough understanding of the state of the receiving environment, the chemical and physical nature of the Processed Kimberlite, the track record of the technology of lacustrine disposal of Processed Kimberlite in a major fish-bearing lake, and proof of agreed-to measures to accommodate potential loss of culture from worst-case scenarios must be required prior to any hydrologic connection between the pits and mine workings and Lac de Gras.

- 14. The Review Board to find that there is already a pre-existing significant adverse cumulative effect on culture, and consider Project effects and make its decisions on whether the Project should be allowed to proceed and under what conditions, in light of this highly sensitive receiving environment,.
- 15. As a condition for approval, the Proponent should be required to fund and support the documentation of qualitative water quality objectives for each affected Indigenous group.
- 16. As a condition for approval, the Proponent should be required to develop a community-based sampling program of fish tissue for culturally preferred species to track changes of fish health overtime, and report results to the affected indigenous communities and as part of relevant regulatory filings with Wek'èezh?i Land and Water Board (WLWB).
- 17. As a condition for approval, the Proponent should be required to design, with input from each affected Indigenous Groups, a Traditional Food Risk communication program with each interested Indigenous group or equivalent agreed to program.
- 18. As a condition for approval, the Proponent should be required to design, with input from each affected Indigenous Groups, a Water Risk communication program with each interested Indigenous group or equivalent agreed to program.
- 19. As a condition for approval, the Proponent should be required to support 3rd partyt review of all water monitoring program(s).
- 20. As a condition for approval, the Proponent should be required to provide proof that all available technologies have been considered prior to placing PK in pits and mine workings.
- 21. As a condition for approval, the Proponent should be required to ensure that all university study results are made available to the Water board as part of permitting prior to consideration of reconnection.



22. As a condition for approval, the Proponent should be required to conduct a 5 to 10 year monitoring of layers prior to reconsideration of a hydrologic connection to be determined by best available science.



1.0 Introduction

This Final Submission (the Submission) is intended to convey to the Mackenzie Valley Environmental Impact Review Board (the Board) the remaining priority issues of concern for Fort Resolution Métis Council (FRMC) with Diavik Diamond Mine Inc's (Diavik or DDMI) Depositing Processed Kimberlite into Pits and Underground Project EA 1819-01 (the Project). FRMC has clarified and updated our original recommendations to the board based on evidence reviewed since the filing of our intervention report.

FRMC's primary focus for this review has been impacts on caribou (wildlife) and impacts on cultural use of Lac de Gras as evidenced by our filings and presentation at the hearing. In addition to our outstanding concerns for these topics FRMC will also be responding to the topics raised by the Board in PR#170. In PR#170 the Board requested Intervenors to include their views on the following:

- qualitative water quality objectives (what the water will be used for and how clean the water needs to be);
- the acceptability of potential impacts of this project compared to the status quo (continuing to deposit and store processed kimberlite in the on-land processed kimberlite containment facility, with the already-approved dam raise); and,
- whether Diavik's proposed mitigation and commitments will allow land users to feel safe eating the fish, drinking the water, and using the area and if not, what additional mitigations would address these concerns (that is, what can Diavik do to make sure the fish and wildlife are safe to eat and the water is safe to drink?).

FRMC would like to thank the Board for the opportunity to participate in this review process and hopes that the comments and recommendations provided here and in our previous filings are seriously considered and applied to improve the Project and the relationship of affected Indigenous groups to its planning, monitoring and management.



2.0 Caribou

2.1 Project-Specific And Cumulative Impacts On Caribou

2.1.1 Issue Summary

FRMC has an Indigenous right to harvest caribou within the project area. Our community has already felt the impacts of the decline of the Bathurst caribou herd, including changes in our diet and way of life. Any additional impact to the herd will be felt within our communities and in the lives of our members for generations to come. At the Hearing on September 6th experts from the in reply to FRMC questions concerning caribou before and since the development of the mine the Government of the Northwest Territories representative stated that ,

"The Bathurst herd has had a very spectacular fall from its highest numbers, which were -- at least on our surveys, 1986, the estimate was approximately four hundred and seventy thousand(470,000) ... And then, as of last year, we were down to approximately eight thousand two hundred (8,200). So, there has been, obviously, a very large decline since the 1990s." (p. 171 and 172, PR#168)

Furthermore the final Bathurst Caribou Range Plan (or Range Plan) (PR#167) recognizes that, "with declining caribou populations, there have been parallel declines in the traditional economy, food security, connection to the land and ultimately cultural identity" (p.45). Any additional impact from the Project therefore must be evaluated in the context of the herd's existing vulnerable state as having the potential to drive further loss of caribou.

2.1.2 DDMI Commitments

In PR#172 DDMI noted the following relevant commitments:

DDMI Commitment 10 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 determine when 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.

DDMI Commitment 13 Wildlife monitoring to assess potential interactions of wildlife with potential contaminants

FRMC is concerned that these measures do not introduce any new protections associated with the new risk of putting Processed Kimberlite (PK) into the pits and mine workings.



The Bathurst Caribou Range Plan (PR#167) recommends that developers should, "invest in research through scientific and traditional knowledge studies aimed at finding innovative approaches to socio-cultural and environmental protection" (p. 70). As evidenced in Diavik's Response to undertaking 2 PR#177, Diavik has refused to fund or further discuss a FRMC Project-Specific Caribou ITK study. FRMC maintains that a FRMC ITK study is needed in both the development of an accurate baseline and in identification of the mitigations needed to respond to potential impacts. FRMC community members hold valuable information that is needed ensure their relationships with the land and to caribou are maintained. An FRMC Caribou ITK study could be completed in a very short time frame and would inform ways to mitigate, monitor, and adaptively manage impacts to caribou from now until full mine closure is complete.

2.1.3 FRMC Conclusions Concerning Project -Specific and Cumulative Impacts to Caribou

DDMI has refused to commit to Recommendation 1 from our Intervention Report (PR#115) whereby we requested that they consider all cumulative effects on the Bathurst Caribou Herd Including all Diavik mine activities and closure plans within the assessment, as well as additional pressures on the herd including predation, fire, disease, and other impacts. FRMC therefore remains concerned with the high degree of uncertainty associated with DDMI's review of adverse cumulative effects for caribou, which also lacks an accurate historic baseline inclusive of FRMC Indigenous traditional knowledge (ITK) and does not properly account for additional cumulative pressures on the Bathurst caribou herd from both industrial activities in the North and climate change impacts.

FRMC asserts that in the absence of an adequate baseline from FRMC, there needs to be additional offsetting and mitigation measures in place that provide a better indication of whether caribou herd declines are continuing, and allow for the introduction of further mitigation in the form of adaptive management measures if these declines continue. To adequately assess the potential for significant adverse cumulative impacts to caribou and reduce uncertainty, FRMC proposes the following conditions if the Project is approved:

- 1. The Review Board to find that there is already a pre-existing significant adverse cumulative effect on the Bathurst Caribou herd, and consider Project effects and make its decisions on whether the Project should be allowed to proceed and under what conditions, in light of this highly sensitive receiving environment.
- 2. As a condition of approval, the Proponent should be required to engage FRMC in a funded caribou ITK study prior to closure, with the results of the study included in filings for relevant regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB) and/or the Wek'èezh?i Renewable Resources Board.



- 3. As a condition of approval, the Proponent to update the Wildlife Management and Monitoring Plan, including Indigenous Traditional Knowledge from all Indigenous groups that harvest in the area on ways to mitigate, monitor, and adaptively manage impacts from changes to Project closure to wildlife including caribou.
- 4. As a condition of approval, the Proponent should be required to involve FRMC and other impacted indigenous groups in the development and implementation of a robust, community-based caribou-monitoring program specific to closure. The monitoring program should include, at minimum:
 - a. Financial support;
 - b. Training and employment of on-the-ground monitors from all impacted communities, including FRMC;
 - c. Partnership with other governments, academics and communities;
 - d. Reporting on the results of monitoring to governments, regulators, and indigenous groups that participated in the EA; and
 - e. Multi-season and range level monitoring of the cumulative pressures on the Bathurst barren-ground caribou herd (e.g., predation, fire, and other impacts) that extends beyond the mine site.

The Indigenous monitoring program will include requirements for development of additional mitigations and offsetting measures for all stages of closure based on the observations of Indigenous monitors.

2.2 Caribou and Habitat Health

2.2.1 Issue Summary

FRMC is concerned that any additional contamination to Lac de Gras will add to the Project Zone of Influence, and decrease the number of healthy caribou in preferred harvesting locations for FRMC members. Specifically, the potential contamination of caribou foraging grounds, including changes to the taste and/or smell of lichens that will lead to caribou avoidance of FRMC preferred hunting areas. It is important to recognize that while the Project physical boundaries will not change Caribou use of habitat can still be impacted by the Project as it is recognized in the Range Plan that, "the combined weight of scientific evidence and traditional knowledge strongly suggests that habitat loss and fragmentation resulting from human land use is greater than the simple sum of direct footprint areas" (PR#167, p. 45).



2.2.2 DDMI Commitments

In PR#172 DDMI noted the following relevant commitments:

DDMI Commitment 13 Wildlife monitoring to assess potential interactions of wildlife with potential contaminants

DDMI Commitment 14 Wildlife deterrent techniques will be implemented as required to reduce interactions with contaminants if necessary

In general FRMC is supportive of wildlife monitoring related to potential contaminants, however, this commitment as written is too vague to alleviate our concerns. As noted in our intervention Report (PR#115) and stated at the hearing (See PR#168) Specific caribou commitments or conditions need to be in place to address community concerns of potential contamination of the caribou harvested, including sampling of organ meat with Indigenous harvesters. In their response to FRMC Interventions (see PR#136 p. 11) Diavik indicated that the sampling of organ meat was not a conventional form of monitoring for closure. At the Hearing GNWT noted that this was not an unconventional approach to monitoring caribou health and something they themselves do (see pages 172 and 173 in the Hearing Transcript PR#168)

FRMC is concerned that it has not been acknowledged that wildlife deterrents may expand the Zone of Influence if it is necessary to continue use of deterrents through closure. FRMC's preference is that guarantees are in place, including possibly not putting PK in pits and mine workings, that assure no contamination is present in Lac de Gras upon closure so that caribou can return to FRMC preferred harvesting areas.

The commitments put forward by DDMI also do not guarantee FRMC participation in any Project-related caribou monitoring. FRMC TK associated with caribou would provide the change-over-time context essential for planning, implementing, and understanding caribou monitoring results. FRMC, as one of the affected Indigenous groups, merits involvement in on the ground monitoring, community review of documents, and community involvement in meetings related to caribou impacts and their management.

2.2.3 FRMC Conclusions Concerning Caribou Habitat Health

DDMI's present commitments related to caribou habitat health, while a small step in the right direction, are not adequate to resolve impacts of concern for FRMC including the impacts connected to the close relationship between access to caribou in preferred locations and FRMC culture. FRMC's original recommendations stand and are proposed as the following conditions:



5. As a condition for approval, the Proponent should be required to conduct Indigenous Traditional Knowledge (ITK) informed sampling of caribou forage and a funded FRMC caribou ITK study highlighting changes over-time observed by FRMC knowledge holders and identifying culturally appropriate recommended measures to reduce existing Project and Cumulative Effects to caribou health.

6. As a condition for approval, the Proponent should be required to develop a community-based sampling program of caribou organ meat to track changes of caribou health overtime, and report results to the affected indigenous communities, Government of the Northwest Territories (GNWT), and as part of relevant regulatory filings with Wek'èezh?i Land and Water Board (WLWB) and or the Wek'èezh?i Renewable Resources Board.

3.0 Culture

3.1 Engagement of FRMC in Diavik's Assessment of the Project

3.1.1 Issue Summary

DDMI has made limited engagement efforts with FRMC to date. As an impacted party, FRMC has expressed concern that our members' issues are not being seriously considered in this assessment and will not be so considered in forthcoming regulatory reviews. Because DDMI has not fully engaged with FRMC early on in this process our priority concerns for caribou and culture have not been addressed by this EA resulting in the following issues specific to this Project:

- Inadequate cumulative effects context applied to the assessment of Project impacts to caribou
- Inadequate assessment of Project impacts to FRMC Culture
- Inadequate Mitigations Proposed for Reducing Impacts to both caribou and FRMC Culture
- Increased uncertainty in the prediction confidence for VCs given the absence of consideration of **all** relevant information

Engagement between DDMI and FRMC needs to be formalized and guaranteed going forward to address these Project-specific concerns.

2.1.2 Relevant DDMI Commitments

FRMC identifies the following DDMI commitments as being related to our concerns regarding engagement:



DDMI Commitment 4. Report Back Findings to All Indigenous Communities

DDMI Commitment 15. 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.

DDMI Commitment 16. DDMI will continue to engage with potentially affected Indigenous groups through the 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.

DDMI Commitment 24. 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:

- i. Provide updates on the PK to Mine Working Project specifically but also on closure planning generally;
- ii. Review recommendations made by the Traditional Knowledge (TK) Panel and DDMI's responses; and
- *iii.* Consider any recommendations from FRMC/NWTMN and DKFN and provide written responses.

DDMI commitment 30. 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

FRMC recognizes that DDMI has made some minor steps to improve engagement, however, given these delayed commitments further assurances are required that they will be carried out in a meaningful and timely manner. For example, it remains unclear to what degree commitment 30 will offer engagement beyond the annual meeting offered in commitment 24. As we noted in the hearing (PR#168) given the likely forthcoming multitude of regulatory activities, if the Project is approved, a single annual meeting would not provide FRMC with opportunities for active participation in the development and implementation of Project monitoring and mitigation measures.

It is also FRMC's understanding at the time of writing that DDMI has not committed to funding engagement activities with non-participant agreement signatories. Given our capacity



constraints expecting FRMC and other Indigenous Groups to participate without provision of capacity funding cannot be considered as meaningful engagement.

3.1.3 FRMC Conclusions Concerning Engagement

FRMC requests that a condition applied to any approval for the Project to proceed is required to enhance and "make real" DDMI's forward looking commitment 30. This condition would require DDMI to provide to the WLWB evidence of respectful, meaningful, and good faith engagement with parties that have in the past demonstrably not been treated by DDMI in this fashion. FRMC recommendations for engagement remain:

7. The Proponent should be required to engage with the "non- signatory" parties like FRMC in a meaningful way during all subsequent regulatory phases of the Diavik closure process, and provide evidence to the WLWB of these efforts.

In addition FRMC support's GNWT's recommendation 5 concerning engagement, and we agree that this should be a condition to any approval to proceed:

"The GNWT recommends the Review Board require DDMI to publicly provide an updated framework for community engagement and participation in closure planning and the closure phase should PK be deposited in the pits. This framework and plans created from this framework should be developed collaboratively with all potentially affected IGOs and clearly identify how DDMI will actively work with communities to ensure that community concerns regarding adverse effects to the safety, qualities, and health of Lac de Gras are addressed. The updated framework could also be used by DDMI as engagement required during the regulatory phase." (See GNWT Hearing Presentation PR#146).

3.2 Inadequate Baseline Collected for Assessment of Impacts to FRMC Culture

3.2.1 Issue Summary

To date there have been no opportunities given by the Proponent to FRMC to research and provide critical baseline information such as traditional land use (TLU) for this assessment nor have any secondary sources concerning Metis ITK or traditional land use been verified with our members. Serious gaps as against the Review Board's own TK Guidelines have been exposed during this EA (See FRMC's Intervention Presentation PR#149 and Intervention Report PR#115). FRMC believes that acceptable (let alone best) practice should require an assessment of culture



on a Nation-by-Nation basis, and be informed by adequate TK and TLU data, endorsed by the affected Indigenous groups. DDMI has not provided an answer on impacts specific to FRMC Culture because to the lack of this vital baseline data.

3.2.2 Relevant DDMI Commitments

DDMI has not committed to any Traditional Land Use Studies with FRMC for this Project as evidenced by DDMI's Response to undertaking 2 (PR#177) where they stated,

"DDMI does not wish to pursue these further [FRMC's proposed studies]. DDMI notes that it has committed to expanded engagement with non-signatory Indigenous Groups, including FRMC, within a framework as highlighted in DDMI's Response to Interventions as part of the ongoing Review of PKMW." (p. 1 PR#177)

A vague commitment to engagement is not equivalent to a commitment for a robust traditional knowledge and land use study. FRMC believes Traditional Knowledge needs to be meaningfully considered for all Indigenous Groups and that there is still a critical requirement and opportunity for FRMC Traditional Knowledge to inform monitoring and mitigation for this specific Project. DDMI's process for incorporating and considering Traditional Knowledge do not align with the principles outlined in the Mackenzie Valley Review Board's (2005) Guidelines for Incorporating Indigenous Knowledge as outlined in our hearing presentation (see PR#149 and PR#168). The Proponent simply being unwilling to complete important data collection work is not a legitimate rationale for this work not to be required. This is a critical concern for FRMC that needs to be addressed; clearly, given DDMI's unaltered stance, it must be addressed through Review Board recommendations.

3.2.3 FRMC Conclusions Concerning Baseline Collected

A properly funded and scoped FRMC TUS would aid in identifying potential impacts of the Project on FRMC land use and occupancy. Impacts and subsequently mitigations are often more clearly and accurately identified when community members' perspectives are documented and brought forward to an environmental assessment process through such studies. Properly focused and effective mitigations can only be informed from the foundation of a credible understanding of impacts. FRMC is confident that a project-specific TUS could be completed in 3 to 4 months and there is still opportunity for such a study to inform a follow-up program for measuring predictions for impacts to culture and use, inform further licensing requirements, as well as aid in developing and implementing mitigations to avoid or minimize impacts to FRMC culture from the hydrologic reconnection of water containing Processed Kimberlite with Lac de Gras (including alienation from land due to contamination real or perceived).



The following FRMC recommendations concerning ITK and Baseline data collection remain outstanding; where necessary they have been adjusted to be directed to the Review Board rather than to the Proponent, given the Proponent's stated unwillingness to commit to further work:

- 8. As a condition for approval, the Proponent should be required to engage all affected Indigenous groups in further ITK data collection to inform future closure planning, with evidence of these efforts and their outcomes reported to the permitting agency or agencies prior to those agencies making Project closure-related decisions. The Proponent will:
 - a. support the collection of Indigenous Traditional Knowledge related to traditional use, and compile it with information already acquired;
 - b. thoroughly consider any Indigenous Traditional Knowledge that is made available, and where applicable, incorporate Indigenous Traditional Knowledge into Project closure design, mitigations, monitoring and adaptive management; and,
 - c. do this in a culturally-appropriate way that respects applicable Indigenous Traditional Knowledge policies and protocols.
- 9. As a condition for approval, the Proponent should be required to complete outstanding Indigenous Traditional Knowledge and land use and occupancy studies as part of closure planning.

FRMC understands that other intervenors have proposed that the TK Panel alone is inadequate for developing and overseeing monitoring and other measures including establishing reconnection criteria. FRMC would therefore like to amend our recommendation 11 to reflect any possible future body responsible for TK for the Project:

10. As a condition for approval, the Proponent should be required to commit to engaging FRMC in any future TK panel sessions and or any equivalent body established for the PK to Mine Workings Project.

3.3 Limited Impact Pathway's for Assessing Culture

3.3.1 Issue Summary

DDMI has not identified or properly assessed impact pathways for Culture connected to FRMC Member's and other Indigenous Groups Members "perceived effects to Lac de Gras". Specifically, the Proponent has not engaged FRMC in identifying impact pathways on FRMC cultural use or in setting thresholds of acceptable change. FRMC members have noted that the



potential for contamination, if kimberlite is placed in the pits, could limit their trust in the land and deter them from practicing their rights. FRMC is concerned that DDMI has asserted that overall impacts of the Project on cultural use are predicted to be negligible in magnitude and not significant" (see response to FRMC IR#5 in PR#83, p. 23) without assessing every impact to culture.

3.3.2 Relevant DDMI Commitments

DDMI Commitment 25 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'èezh\'i Land and Water Board (WLWB) for public review and approval as a closure criteria.

TK reconnection criteria is not equivalent to FRMC's proposed follow-up program as it does not address the gaps in DDMI's assessment concerning culture nor does it mitigate effects from perceived contamination. Given DDMI's July 29th Response to Information Requests (PR#100) indicates that there will intermixing of pit water with Lac de Gras regardless of a decision to reconnect measures need to be in place to protect culture regardless of reconnection. It is FRMC's understanding that any contamination perceptions by our members could impact our Culture greatly. In contrast, a full follow-up program would give all affected Indigenous Groups a chance to identify impacts and the means to mitigate and monitor those impacts.

3.3.3 FRMC Conclusions Concerning Impact Pathways

In the Hearing on September 5th 2019 DDMI acknowledged that they did not assess impacts to culture related to perceptions (See p.236 of PR#165). FRMC is greatly concerned that the Proponent has transferred the burden of identifying these impacts to Indigenous groups like FRMC. FRMC does believe that only the culture holders themselves can identify and characterize these kinds of effects, however as the entity introducing the effect the Proponent should be responsible for for providing the resources to Indigenous groups necessary to complete this work. FRMC therefore maintains our recommendation for a follow-up program as a condition:



11. As a condition for approval, the Proponent should be required to design, with input from affected Indigenous Groups, a follow-up program to verify the accuracy of impacts to culture. The follow-up program shall inform adaptive management and improve the effectiveness of the Proponent's mitigation of cultural impacts. As part of this follow-up program the Proponent will:

- engage with Indigenous groups that participated in the environmental assessment to identify cultural impacts, including cumulative impacts, from the Project;
- b. develop a framework with Indigenous groups for determining the acceptability of changes to perceived water quality and use;
- c. seek the input of those Indigenous groups on ways to strengthen the Proponent's cultural impact mitigation initiatives; and
- d. report annually to those Indigenous groups on the effectiveness of the Proponent's efforts to mitigate cultural impacts.

A detailed description of the Follow-up program to be included in filings for regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB)

3.4 Inadequate Mitigations Proposed for Reducing Impacts to FRMC Culture

3.4.1 Issue Summary

To date in this EA, DDMI has made no effort to work directly with FRMC to develop culturally appropriate mitigation for impacts to FRMC culture. FRMC's finding is that commitments (PR#172) and mitigations proposed to date in the SIS (PR#53) are not reflective of, nor do they adequately address, FRMC member concerns. It continues to remain unclear if there will be funded opportunities to develop and review mitigations for the Project.

3.4.2 Relevant DDMI Commitments

DDMI Commitment 16 DDMI will continue to engage with potentially affected Indigenous groups through the 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.

DDMI Commitment 25 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 reconnection that are TK-based.



Under Culture in DDMI's commitment table DDMI has also identified commitments related strictly to biophysical VCs (see commitments 18 to 23 in PR#172). Commitment 16 is vague and does not provide specific details as to how mitigation planning will proceed with FRMC involvement. A vague promise of engagement does not guarantee active participation in mitigation planning and implementation. As noted above in section 3.3 commitment 25 does not address impacts from perceived contamination nor does it address impacts to culture from a hydrologic connection made prior to the breaching of the dikes.

3.4.3 FRMC Conclusions Concerning Mitigations

Mitigations specific to cultural use are required to account for experiential or sensory changes specific to land and water users and alienation effects related to perceptions of contamination and other stigmas, alteration of the visual landscape, reduced knowledge of navigability, and other impacts that can only be identified by cultural land users and knowledge holders. FRMC recommendations remain the same:

- 12. As a condition of approval, the Proponent should be required to show evidence to the WLWB and GNWT that it is working with FRMC and other indigenous groups through workshops or other agreed to forums, to identify mitigation appropriate for preventing, reducing or compensating/offsetting harms to cultural use.
- 13. To provide assurances that any potential adverse impacts would not be significant, a thorough understanding of the state of the receiving environment, the chemical and physical nature of the Processed Kimberlite, the track record of the technology of lacustrine disposal of Processed Kimberlite in a major fish-bearing lake, and proof of agreed-to measures to accommodate potential loss of culture from worst-case scenarios must be required prior to any hydrologic connection between the pits and mine workings and Lac de Gras.

In addition FRMC is supportive of GNWT Recommendation 6 concerning monitoring, and recommends the Review Board develop a recommended related condition to any approval:

"As IGOs have indicated a preference for visual monitoring of the Project, include potentially affected IGOs in the visual monitoring of all phases of the Project and publicly report on these monitoring activities to ensure that potentially affected Indigenous communities are well-informed and aware of Project design, activities, and potential effects for the life of mine" (See GNWT Hearing Presentation PR#146).

3.5 Project-Specific And Cumulative Impacts On Culture

3.5.1 Issue Summary

FRMC disagrees with the Proponents' findings of no significant adverse Project-specific effects and no significant cumulative effects to Indigenous Culture. Given the substantial unknown's



produced from a lack of credible baseline data, inadequate identification of impact pathways and thresholds, and inadequate identification of mitigations specifically designed to address impacts to FRMC culture, as evidenced by our filings to-date, it is FRMC's position that there is not enough information to make a valid project-case significance estimate for impacts to Culture with confidence. Furthermore, FRMC is concerned that there are significant cumulative effects on Indigenous Culture presently occurring that have not been acknowledged by DDMI.

3.5.2 Relevant DDMI Commitments

Please see 3.4.2 for our discussion on DDMI commitments related to culture.

3.5.3 FRMC Conclusions Concerning Project-Specific And Cumulative Impacts On Culture FRMC believes that the degree of resilience/vulnerability of each individual Indigenous Group must be understood and characterized as part of effects characterization and included as a measureable significance consideration, as Indigenous Groups that have seen substantial erosion of their cultural landscape and/or cultural continuity are at higher risk of significant adverse effects from further loss. This has not been completed by the Proponent for this assessment. There are pre-existing significant adverse cumulative effects on FRMC culture, therefore FRMC keeps our recommendation to the board unchanged and requests the following condition:

14. The Review Board to find that there is already a pre-existing significant adverse cumulative effect on culture, and consider Project effects and make its decisions on whether the Project should be allowed to proceed and under what conditions, in light of this highly sensitive receiving environment.

4.0 Response to Board Requests in PR#170

4.1 Qualitative Water Quality Objectives

In <u>PR#170</u> the Board requested intervenors to provide their qualitative water quality objectives including what the water will be used for and how clean the water needs to be. **It is FRMC's** perspective that the water should be as clean as it was before the mine. FRMC would also like to highlight the following water quality objectives (informed by Table 1 in our Intervention Report <u>PR#115</u>, included again as Appendix 1 here for the Review Board's reference):

- Clean water free from contaminants that supports healthy caribou forage and caribou habitat recovery.
- Water clean enough for FRMC members to have faith in the safety and quality of caribou harvested.



- Clear and clean water (no increased turbidity) free from contaminants, that supports the health of fish and availability of fish in preferred locations for FRMC members.
- Water clean enough for FRMC members to have faith in the safety and quality of fish harvested.
- Clean water free from contaminants that provides plentiful drinking water from natural sources to support FRMC members out on the land.
- Clean water free from contaminants that supports engagement and teaching of youth out on the land without concerns for their health and safety.

Please note that these objectives are preliminary. It is FRMC's understanding that a resource's use, and subsequently objectives for that resource are often more clearly and accurately identified when community members' perspectives are fully and diligently documented. FRMC requires the capacity to document our member's concerns and objectives for water in Lac de Gras, we therefore recommend in addition to FRMC Recommendation 13:

15. As a condition for approval, the Proponent will fund and support the documentation of qualitative water quality objectives for each affected Indigenous group.

4.2 The Acceptability of Potential Impacts

In <u>PR#170</u> the Board has requested intervenors to describe the acceptability of potential impacts of this Project compared to the status quo (continuing to deposit and store processed kimberlite in the on-land processed kimberlite containment facility, with the already-approved dam raise).

Given the uncertainties associated with the assessment, and the cumulative context of caribou and for our culture, FRMC is opposed to the placing of PK in pits and mine workings.

In general FRMC is concerned about the storage of PK in water in pits and mine workings for several reasons including but not limited to:

- This is a new and largely untested process
- Members are concerned that either sediment or associated contaminants will not settle to the bottom
- Members are concerned that water containing PK and or PK contaminants will enter Lac de Gras prior to reconnection
- Members are concerned that if DDMI may leave upon closure without adequate protection for the environment and our Traditional Territory put in place
- Members are concerned that contaminated water will affect caribou forage changing caribou migration and health



 Members are concerned that if contaminated Lac de Gras will no longer be able to support our way of life or our youth in the future

Whereas FRMC does have concerns with potential effects from the PK containment facility as well, we believe there is more certainty in proceeding with the original plan with the already approved dam-raise where risks are better known.

4.3 Will Diavik's Proposed Mitigation And Commitments Allow FRMC Land Users To Feel Safe?

In <u>PR#170</u> the Board has requested that intervenors describe whether Diavik's proposed mitigation and commitments will allow land users to feel safe eating the fish, drinking the water, and using the area – and if not, what additional mitigations would address these concerns. FRMC takes the position that the mitigations and commitments presently proposed will not allow land users to feel safe on the land as evidenced by section 3.4 of this Submission.

FRMC has stated in previous filings that to provide assurances that any potential adverse impacts would not be significant, a thorough understanding of the state of the receiving environment, the chemical and physical nature of the Processed Kimberlite, the track record of the technology of lacustrine disposal of Processed Kimberlite in a major fish-bearing lake, and proof of agreed-to measures to accommodate potential loss of culture from worst-case scenarios must be required.

The following recommended conditions already discussed above will be necessary to provide the assurances our members need to feel safe on the land in the future:

- 2. As a condition of approval, the Proponent should be required to engage FRMC in a funded caribou ITK study prior to closure, with the results of the study included in filings for relevant regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB) and/or the Wek'èezh?i Renewable Resources Board.
- 3. As a condition of approval, the Proponent to update the Wildlife Management and Monitoring Plan, including Indigenous Traditional Knowledge from all Indigenous groups that harvest in the area on ways to mitigate, monitor, and adaptively manage impacts from changes to Project closure to wildlife including caribou.
- 4. As a condition of approval, the Proponent should be required to involve FRMC and other impacted indigenous groups in the development and implementation of a robust,



community-based caribou-monitoring program specific to closure. The monitoring program should include, at minimum:

- 1. Financial support;
- 2. Training and employment of on-the-ground monitors from all impacted communities, including FRMC;
- 3. Partnership with other governments, academics and communities;
- 4. Reporting on the results of monitoring to governments, regulators, and indigenous groups that participated in the EA; and
- 5. Multi-season and range level monitoring of the cumulative pressures on the Bathurst barren-ground caribou herd (e.g., predation, fire, and other impacts) that extends beyond the mine site.

The Indigenous monitoring program will include requirements for development of additional mitigations and offsetting measures for all stages of closure based on the observations of Indigenous monitors.

- 5. As a condition for approval, the Proponent should be required to conduct Indigenous Traditional Knowledge (ITK) informed sampling of caribou forage and a funded FRMC caribou ITK study highlighting changes over-time observed by FRMC knowledge holders and identifying culturally appropriate recommended measures to reduce existing Project and Cumulative Effects to caribou health.
- 6. As a condition for approval, the Proponent should be required to develop a community-based sampling program of caribou organ meat to track changes of caribou health overtime, and report results to the affected indigenous communities, Government of the Northwest Territories (GNWT), and as part of relevant regulatory filings with Wek'èezh?i Land and Water Board (WLWB) and or the Wek'èezh?i Renewable Resources Board.
- 8. As a condition for approval, the Proponent should be required to engage all affected Indigenous groups in further ITK data collection to inform future closure planning, with evidence of these efforts and their outcomes reported to the permitting agency or agencies prior to those agencies making Project closure-related decisions. The Proponent will:
 - a. support the collection of Indigenous Traditional Knowledge related to traditional use, and compile it with information already acquired;
 - thoroughly consider any Indigenous Traditional Knowledge that is made available, and where applicable, incorporate Indigenous Traditional Knowledge into Project closure design, mitigations, monitoring and adaptive management; and,



c. do this in a culturally-appropriate way that respects applicable Indigenous Traditional Knowledge policies and protocols.

- 9. As a condition for approval, the Proponent should be required to complete outstanding Indigenous Traditional Knowledge and land use and occupancy studies as part of closure planning.
- 11. As a condition for approval, the Proponent should be required to design, with input from affected Indigenous Groups, a follow-up program to verify the accuracy of impacts to culture. The follow-up program shall inform adaptive management and improve the effectiveness of the Proponent's mitigation of cultural impacts. As part of this follow-up program the Proponent will:
 - a. engage with Indigenous groups that participated in the environmental assessment to identify cultural impacts, including cumulative impacts, from the Project;
 - develop a framework with Indigenous groups for determining the acceptability of changes to perceived water quality and use;
 - c. seek the input of those Indigenous groups on ways to strengthen the Proponent's cultural impact mitigation initiatives; and
 - d. report annually to those Indigenous groups on the effectiveness of the Proponent's efforts to mitigate cultural impacts.

A detailed description of the Follow-up program to be included in filings for regulatory stages of approvals with the Wek'èezh?i Land and Water Board (WLWB)

13. As a condition of approval, the Proponent should be required through the Water Licence process and approval of its final closure plan, to provide assurances that any potential adverse impacts would not be significant, a thorough understanding of the state of the receiving environment, the chemical and physical nature of the Processed Kimberlite, the track record of the technology of lacustrine disposal of Processed Kimberlite in a major fishbearing lake, and proof of agreed-to measures to accommodate potential loss of culture from worst-case scenarios must be required prior to any hydrologic connection between the pits and mine workings and Lac de Gras.

In addition, FRMC has considered the Review Board question and identified the following additional recommended conditions that would be necessary (partially adapted from table 1 of our Intervention Report PR#115; see Appendix 1 below):

16. As a condition for approval, the Proponent should be required to develop a community-based sampling program of fish tissue for culturally preferred species to track changes of fish



health overtime, and report results to the affected indigenous communities and as part of relevant regulatory filings with Wek'èezh?i Land and Water Board (WLWB).

- 17. As a condition for approval, the Proponent should be required to design, with input from each affected Indigenous Groups, a Traditional Food Risk communication program with each interested Indigenous group or equivalent agreed to program.
- 18. As a condition for approval, the Proponent should be required to design, with input from each affected Indigenous Groups, a Water Risk communication program with each interested Indigenous group or equivalent agreed to program.
- 19. As a condition for approval, the Proponent should be required to support 3rd partyt review of all water monitoring program(s).
- 20. As a condition for approval, the Proponent should be required to provide proof that all available technologies have been considered prior to placing PK in pits and mine workings.
- 21. As a condition for approval, the Proponent should be required to ensure that all university study results are made available to the Water board as part of permitting prior to consideration of reconnection.
- 22. As a condition for approval, the Proponent should be required to conduct a 5 to 10 year monitoring of layers prior to reconsideration of a hydrologic connection to be determined by best available science.

5.0 Conclusions

It is FRMC's conclusion that the Board should adopt a precautionary approach in decisions concerning both caribou and culture for this Project. FRMC Members' are concerned that if this Project is approved as proposed without further conditions in place, DDMI may leave upon closure without adequate protection for the environment and our Traditional Territory put in place.

To alleviate this and other concerns FRMC has made 22 recommendations, summarized at the start of this submission and reiterated where appropriate in the body text above. Given the Proponent's reluctance to adopt these additional commitments, we look to the Review Board to recommend them as conditions of any approval for this proposed Project.

FRMC thanks the Review Board for its diligence in this environmental assessment, and we appreciate the opportunity to provide you our recommendations to make this a better, more protective and engaged, closure scenario for this critical part of our territory.





Appendix 1

Table 1 Measures required by FRMC prior to a hydrologic connection between the Pits and Mine Workings and Lac de Gras

Valued Component/ Indicator	Criteria / Measures	FRMC Concern	How to Measure
Bathurst caribou herd Health and Availability in Preferred Locations	-Health/existing contamination of caribou Forage prior to a hydrologic connection -Migration behavior of herd prior to a hydrologic connection	FRMC is concerned that any additional contamination to Lac de Gras could add to the Project Zone of Influence changing the number of healthy caribou in preferred harvesting locations for FRMC members. FRMC seeks assurances as to both the state of caribou forage in the Project area and cumulative impacts on caribou prior to any hydrologic connection.	-Indigenous Traditional Knowledge (ITK) informed sampling of caribou Forage -Funded FRMC caribou ITK study highlighting changes over-time observed by FRMC knowledge holders and identifying culturally appropriate recommended measures to reduce existing Project and Cumulative Effects.
Fish and Fishing	-Health and availability of fish in Lac de Gras -Turbidity of water in the pit lakes before a hydrologic connection	that fish in Lac de Gras are already contaminated due to Project activities. FRMC requests confirmation that the present state of fish health could sustain any additional contaminants prior to a hydrologic connection. FRMC members are also concerned that member perceptions of contamination may add to alienation effects	-Tissue sampling of preferred fish species in Lac de Gras -Proponent commitment to sharing fish sampling results directly with FRMC -Proponent commitment to developing a Traditional Food Risk



Valued Component/ Indicator	Criteria / Measures	FRMC Concern	How to Measure
		for fishing therefore assurances on the transparency of fish sampling and safety are required prior to a hydrologic connection. FRMC members are also concerned about water turbidity if PK does not fully settle over time and how this could change the natural turbidity of Lac de Gras if reconnected impacting fish.	communication program or equivalent agreed to program is in place
Water Quality (In Lac de Gras) and the ability of FRMC members to have access to fresh water on the land.	-Water quality in Lac de Gras	FRMC members are also concerned that member perceptions of contamination may add to alienation effects related to availability of clean water supportive of FRMC land-use therefore assurances on the transparency of water sampling and safety are required prior to a hydrologic connection.	-Water quality in Lac de Gras in proximity to the pits. -Proponent commitment to sharing water quality sampling results directly with FRMC -Proponent commitment to developing a water Risk communication program or equivalent agreed to program is in place -Opportunities for 3 rd party review of water monitoring program(s)



Valued Component/ Indicator	Criteria / Measures	FRMC Concern	How to Measure
State of (track record of) Technology	-Proof that best methods are being utilized prior to a hydrologic connection	FRMC members are concerned that not all potential alternatives have been explored and seek assurances that best practice and any technological advances that could limit adverse impacts are employed.	-Open and transparent alternatives assessment with Indigenous Involvement (Including FRMC participation) has been conducted -Proof that all available technologies have been considered (including use of conveyors to cap pits with courser PK material).
Long-term Stability of PK and Pore Water in Pits	-Proof of stability of layers for greater than 5 years -Results of any University Studies on the long-term stability of PK and Pore Water Layers	FRMC is concerned that the results of any University Studies experimenting with this new mining technique and it's stability will not be available prior to the completion of this EA. Assurances that the long-term stability of layers can be maintained is required before a hydrologic connection.	-All study reports are made available to the Water board as part of permitting prior to consideration of reconnection. -5 to 10 year monitoring of layers prior to reconsideration of a hydrologic connection to be determined by best available science
Proof of Measures to Protect FRMC Culture	-Identification of appropriate and agreed to measures are	FRMC is concerned that a hydrologic connection could mean a permanent loss of culture in any worst case scenario and requests	-Proponent commitments to appropriate and agreed to measures for the Protection of



Valued Component/ Indicator	Criteria / Measures	FRMC Concern	How to Measure
	ready to be implemented	assurances that appropriate accommodation including commitments for compensation is in place prior to consideration of reconnection.	FRMC culture are inplace including implementation plans.