



# Public Hearing Presentation

for Diavik EA1819-01 Depositing Processed Kimberlite in Pits and Underground

Yellowknife, NT  
September 5, 2019

# Overview

- Wildlife
- Water Quality
  - Alternatives to deposition of processed kimberlite (PK) into open pits
  - Cumulative effects assessment and risk assessment
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  - A21
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# Wildlife

- The GNWT's position is that the pathway of potential effects on wildlife and wildlife habitat is through exposure of potentially contaminated surface water.
- Addressing potential effects on water quality should address potential effects on wildlife and wildlife habitat.



# Wildlife

- DDMI's made a commitment to implement mitigations for wildlife.
- No likely significant adverse impacts to reviewed wildlife species within the GNWT jurisdiction if acceptable water quality conditions are met and wildlife mitigations are implemented.
- No wildlife recommendations at this time.



## Water Quality

# Alternatives to Deposition of PK into Open Pits

- The GNWT has concern, and notes the concern raised by others, regarding the appropriateness of modeling conducted to date and the effectiveness of the mitigation strategies proposed by DDMI to ensure acceptable water quality conditions post-deposition of PK into the pits and underground mine workings.
- The GNWT is concerned that the mitigation options proposed by DDMI focus on the post-closure water quality after PK is deposited into the open pits.





## Water Quality

# Alternatives to Deposition of PK into Open Pits

- The GNWT supports the concept of deposition of PK and then reconnection of the pits upon demonstration of appropriate and acceptable water quality conditions.
- More discussion from DDMI on the feasibility of 'alternative options' is recommended.



# Water Quality

## Alternatives to Deposition of PK into Open Pits

- Recommendation 1:
  - The GNWT is of the opinion that if the deposit of PK into pits results in poor water quality which results in the avoidance of the area or results in traditional users no longer using the area for traditional purposes, the contingency mitigation option should include raising the PKC Facility such that it can store the remaining PK produced from the site. DDMI should commit to continue refining and updating modeling to confirm that the deposition of PK to mine workings would not result in unacceptable conditions in the pits or Lac de Gras, prior to placing PK into the pits.



## Water Quality Cumulative Effects Assessment and Risk Assessment

- DDMI has not conducted a cumulative effects assessment or a risk assessment as previously requested by the GNWT.
- DDMI's information request responses and Intervention do not satisfy the GNWT's request for cumulative effects assessment without further rationale.





## Water Quality Cumulative Effects Assessment and Risk Assessment

- Cumulative effects assessments by DDMI for the Project are limited to predicting worst case scenario water quality in each of the pit lakes over a 100-year period using project-specific effects and pertain to the pit lakes only.
- The GNWT is also not convinced that the modeling to date and the approach used to assess cumulative effects is complete or appropriate.



## Water Quality Cumulative Effects Assessment and Risk Assessment

- The MVRMA (s.117(2)(b)) requires that cumulative impacts be considered in every environmental assessment.
- Therefore, the GNWT's position is that more recent and revised methods for assessing cumulative effects, the inclusion of effects pathways and overall approach to assessing cumulative effects should be applied to this proposed Project.



# Water Quality Cumulative Effects Assessment and Risk Assessment

- Recommendation 2:
  - **The GNWT is unable to assess the significance of changes to the water quality as a result of cumulative effects from the Jay Project and the Diavik Mine at this time. Should updated modeling predict water quality conditions in the pit lakes or within Lac de Gras, in the vicinity of the mine, are of such poor quality that traditional users could either avoid the area or no longer use the area for traditional purposes, the placement of PK into the pits and underground mine workings should not be approved.**



## Water Quality

# North Inlet Water Treatment Plan (NIWTP)

- The GNWT recommended that the Review Board require DDMI to provide the total dissolved solids (TDS) loads to the NIWTP, as they were not provided as requested.
- The GNWT is concerned that the TDS loads could impact water quality conditions as a result of the deposition of PK to the pit lakes.
- DDMI has since satisfied this request in their Intervention and in meetings with GNWT.



# Water Quality

## North Inlet Water Treatment Plan

- Recommendation 3:
  - Due to DDMI not providing information requested by the GNWT, the GNWT is unable to assess the significance of increased TDS loads on Lac de Gras as a result of placing PK into the open pits. The GNWT will request information on TDS loads in the water licencing process to ensure agreed to water quality thresholds or benchmarks are achieved in Lac de Gras.





# Water Quality A21

- The GNWT is concerned with using A21 pit for the deposition of PK and extra fine processed kimberlite (EFPK) based on the water quality conclusions reached by DDMI.
- The GNWT understands DDMI has now removed A21 as an option.



# Water Quality A21

- Recommendation 4:
  - **The GNWT recommends that if the placement of PK into A21 is required to maintain operational flexibility, that a cover or barrier be placed over the PK to prevent the mixing with water that could result in poor water quality at closure.**



## **Social Well-being Project Interactions with Cultural Use**

- The GNWT recognizes that the health and well-being of Indigenous residents and communities is linked to the health of the biophysical environment.
- The GNWT considered potential project interactions with and effects on Indigenous cultural use, including the potential effects the project may have on the well-being of Indigenous residents and communities.



# Social Well-being

## Project Interactions with Cultural Use

- The GNWT reviewed the SIS and IR responses from DDMI, and considered that:
  - The project area is socially, culturally and spiritually important to Indigenous peoples.
  - Traditional and continued use of Lac de Gras and the area surrounding it is important to cultural continuity and preservation in relation to well-being.
  - The potential for project effects to contribute to cumulative social impacts to Indigenous residents and communities from diamond mining activities.



# Social Well-being

## Project Interactions with Cultural Use

- Recommendation 5:
  - 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.





# Social Well-being Cumulative Environmental Effects

- The GNWT has identified the potential for the project effects to contribute to cumulative social impacts on community well-being should mitigations to ensure effective engagement, collaborative and visual monitoring, and a consideration of potential effects on community well-being not be implemented.



# Social Well-being

## Cumulative Environmental Effects

- Recommendation 6:
  - **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.**



# Closing

The GNWT would like to thank the Review Board for providing the opportunity to present its Intervention and associated recommendations.

