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September 2, 2020

File: MV2011L2-0004

Colleen Prather  
Regulatory Specialist  
De Beers Canada Inc.  
Suite 300 – 1601 Airport Road NE  
Airport Corporate Centre  
CALGARY AB T2E 6Z8

Sent via Email

Dear Colleen Prather:

**2019 AEMP Annual Report – Resubmission required  
De Beers Canada Inc. – Snap Lake, NT**

The Mackenzie Valley Land and Water Board (MVLWB or the Board) met on August 27, 2020 to review De Beers' 2019 AEMP Annual Report, which was submitted under Part G, Condition 6 of Water Licence MV2011L2-0004.

The Board requires that De Beers resubmit the 2019 AEMP Annual Report, Version 1 in accordance with comments made during this review, as summarized in Table 1 (attached) by **September 29, 2020**. This Report will be considered to be approved upon receipt of this information and written conformity of confirmation from Board staff.

The Board has included Tables 2 and 3 for De Beers' submission of the AEMP Re-evaluation Report required under Licence MV2019L2-0004 and future AEMP Annual Reports or Water Licence Annual Reports required under Licence MV2019L2-0004. De Beers should include these items in a concordance table to reference the section in the submissions where those items are addressed.

If you have any questions or concerns, please contact Jacqueline Ho at (867) 766 7455 or email [jho@mvlwb.com](mailto:jho@mvlwb.com) or Angela Love at (867) 766 7456 or email [angela.love@mvlwb.com](mailto:angela.love@mvlwb.com).

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Mavis Cli-Michaud".

Mavis Cli-Michaud  
MVLWB, Chair

Copied to: Distribution List

Attached: Table 1: De Beers – Snap Lake – Board Directives for 2019 AEMP Annual Report from Water Licence MV2011L2-0004  
Table 2: De Beers – Snap Lake – Board Directives for AEMP Re-evaluation Report required under Water Licence MV2019L2-0004  
Table 3: De Beers – Snap Lake – Board Directives for future AEMP Annual Reports or Water Licence Annual Reports required under Water Licence MV2019L2-0004

**Table 1: De Beers – Snap Lake – Board Directives for 2019 AEMP Annual Report from Water Licence MV2011L2-0004**

|        |                                                                                                                                                                                     |          |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| i.     | Correct the spelling of community names in the next iteration of the AEMP Annual Report.                                                                                            | MVLWB-2  |
| ii.    | Correct the symbol of the Gahcho Kue mine in the next iteration of the AEMP Annual Report.                                                                                          | MVLWB-3  |
| iii.   | Correct the section references in Section 1.3 Table 1.3-1 as described in MVLWB-4 review comment.                                                                                   | MVLWB-4  |
| iv.    | Correct the text in section 1.4 to reflect the monitoring completed in 2019 in response to MVLWB-5.                                                                                 | MVLWB-5  |
| v.     | Include Figure 1.4-2 to show the sampling stations downstream of Snap Lake including Mackay Lake station                                                                            | MVLWB-6  |
| vi.    | Include the reference the MVLWB/GNWT 2019 Guidelines for Aquatic Effects Monitoring Program in section 1.9                                                                          | MVLWB-7  |
| vii.   | Adjust text in section 2.2.4.1 and Table 2.2-2 to clarify the installation and location of benchmarks                                                                               | MVLWB-9  |
| viii.  | Correct the reference for the normal range calculation from section 4.2.5.3 to section 4.3.5.3                                                                                      | MVLWB-13 |
| ix.    | Correct the table 5.3.1 that field parameters were not collected at the time of effluent on June 25, 2019                                                                           | MVLWB-14 |
| x.     | Include the response to MVLWB-15 to describe the deviation from the approved acute toxicity testing methods and explain how the communication error can be prevented in the future. | MVLWB-15 |
| xi.    | Include new text in section 5.3.4 to describe the deviation and interpretation of toxicity test results in response to MVLWB-16                                                     | MVLWB-16 |
| xii.   | Update the reference to the QA/QC plan Version 2                                                                                                                                    | MVLWB-18 |
| xiii.  | Include this response to MVLWB-19 in the next iteration of 2019 AEMP Annual Report to reflect the additional step to ensure toxicity test is completed during discharge.            | MVLWB-19 |
| xiv.   | Clarify the status of approval of the proposed Medium Action Level for Closure and Post-Closure.                                                                                    | MVLWB-21 |
| xv.    | Clarify the footnote (b) in Table 6.2-4                                                                                                                                             | MVLWB-22 |
| xvi.   | Include a footnote indicating the approval status of AEMP Response Plan for triggering the manganese related moderate action level.                                                 | MVLWB-24 |
| xvii.  | Correct the format in Table 14.2-3 as described in review comment MVLWB-25                                                                                                          | MVLWB-25 |
| xviii. | Add a footnote to indicate the approval status of the medium action level for plankton                                                                                              | MVLWB-26 |

**Table 2: De Beers – Snap Lake – Board Directives for AEMP Re-evaluation Report required under Water Licence MV2019L2-0004**

|      |                                                                                                                                                                                                                                                                                                                 |       |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| i.   | Include timeseries plots for each major Phytoplankton group in the AEMP Re-evaluation Report.                                                                                                                                                                                                                   | ENR-3 |
| ii.  | Include graphs showing the spatial patterns of phytoplankton biomass in the submission of the AEMP Re-evaluation Report.                                                                                                                                                                                        | ENR-4 |
| iii. | Consider including at least one AEMP sampling event within the main basin of Snap Lake occurs in the latter half of the discharge period (i.e. the early open water sample) with third AEMP sampling event (i.e. the late open water sample) occurring as close as possible to the end of the discharge period. | ENR-5 |

**Table 3: De Beers – Snap Lake – Board Directives for future AEMP Annual Reports or Water Licence Annual Reports required under Water Licence MV2019L2-0004**

|     |                                                                                                                                                                                                                                            |          |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| i.  | Provide an update in the 2020 AEMP Annual Report or 2020 Water Licence Annual Report regarding the inspection and maintenance of the Hill Station.                                                                                         | MVLWB-8  |
| ii. | Further investigate the mortality observed in Daphnia magna and complete further testing and investigation if mortality is observed and provide an update regarding the Daphnia magna tests and investigations (if any), where applicable. | MVLWB-17 |