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Environmental Protection Operations (EPO) Directorate
Prairie and Northern Region
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April 22, 2014

EC file: 5100 000 034 004
MVEIRB file: EA1314-02

Simon Toogood, Regulatory Officer
Mackenzie Valley Environmental Impact Review Board
P.O. Box 938
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via email: stoogood@reviewboard.ca

Attention: Mr. Toogood

**RE: Request for Comments on MVLWB Item - MV2011L2-0004 - De Beers - Snap Lake - 2014 Waste Management Plan**

Environment Canada (EC) has reviewed the information submitted by De Beers on April 11th, 2014 to support the Snap Lake Amendment Technical Sessions of April 15-16th, 2014. EC has some additional Information Requests (IRs) arising from the supplemental information submitted.

Attachment 2: Supplemental IR Responses, MVLWB IR 2, 8, and 11

1) In IR MVLWB 2, the proponent indicated that "... effluent discharged to Snap Lake from the Snap Lake Mine will be treated such that TDS concentrations in the effluent will not exceed the proposed average monthly limit (AML) of 684 mg/L from January 1, 2015 to January 1, 2029. For the simulation, if the concentration of TDS in the effluent was predicted to be greater than 684 mg/L in De Beers (2013a), the concentration of TDS was reduced to 684 mg/L." Could the proponent explain what parameter(s) was changed in the simulation to ensure that the concentration of TDS stayed below 684 mg/L?

2) In the response to IR MVLWB 2, Figure MVLRB 2-1 showed predicted depth averaged total dissolved solids concentrations in Snap Lake "with mitigation". In the response to IR MVLWB 8, Figure MVLWB 8-1 showed predicted depth averaged chloride concentrations in Snap Lake "with treatment". Could the proponent explain the difference between "with mitigation" and "with treatment"? If they mean the same thing, could the proponent explain what percentage of effluent was treated to develop these two figures.

Attachment 3: Snap Lake Water Licence Amendment Environmental Assessment Supplemental

1) In Figure 2-4, the three graphs show that the depth-averaged fluoride concentrations in Snap Lake are well below the proposed SSWQO of 2.463 mg/L from 2014 to 2028. Could the proponent explain why such a high SSWQO is needed for fluoride?

2) In Figure 2-5, the three graphs show that the depth-averaged sulphate concentrations in Snap Lake are well below the proposed SSWQO of 429 mg/L from 2014 to 2028. Could the proponent explain why such a high SSWQO is needed for sulphate?

3) In Figure 2-6, the three graphs show that the depth-averaged nitrate concentrations in Snap Lake are well below the proposed SSWQO of 16.4 mg/L from 2014 to 2028. Could the proponent explain why such a high SSWQO is needed for nitrate?

If there are any changes to the provided plans and/or more information becomes available, EC should be notified, as further review may be necessary. Please do not hesitate to contact me at (867) 669-4724 or via email at sarah-lacey.mcmillan@ec.gc.ca.

Sincerely,

Sarah-Lacey McMillan
Senior Environmental Assessment Coordinator
Environmental Protection Operations
Prairie and Northern Region
Environment Canada

cc: Carey Ogilvie Head Environmental Assessment North (NT & NU), EPO
EC Review Team