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March 24, 2020

File: W2015L2-0001

Sean Sinclair
Diavik Diamond Mines (2012) Inc.
P.O. Box 2498
Suite 300, 5201-50th Avenue
Yellowknife, NT X1A 2P8

Dear Sean Sinclair,

Sent via Email

Re: SNP Stations 1645-18 and 1645-18B Update Request

The Wek'èezhìi Land and Water Board (WLWB or the Board) met on March 24, 2020 and considered Diavik Diamond Mines' (2012) Inc. (DDMI) request to change Part E of the Surveillance Network Program (SNP) of Type A Water Licence W2015L2-0001 (the Licence). Specifically, DDMI has requested to decrease the sampling frequency for faecal coliforms, biological oxygen demand (BOD₅), and oil and grease at SNP stations 1645-18 and 1645-18B (i.e., main effluent discharge) from once every seven days to once every calendar quarter.¹

As described in the attached Reasons for Decision, the Board has approved DDMI's request to change the sampling frequency of SNP stations 1645-18 and 1645-18B from once every seven days to once in each calendar quarter.

Please review the attached Reasons for Decision for further information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe Mackenzie".

Joe Mackenzie
Chair, Wek'èezhìi Land and Water Board

¹ See WLWB (www.wlwb.ca) Online Registry for [Diavik - SNP - Update Request - Sampling Frequency of Select Parameters at 1645-18 and 1645-18B - Dec 20 19.pdf](#)



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Reasons for Decision

Reference/File Number:	W2015L2-0001
Licensee:	Diavik Diamond Mines (2012) Inc.
Subject:	Request for Change to Sampling Frequency of Select Parameters at SNP Stations 1645-18 and 1645-18B

Decision from the Wek'èezhìi Land and Water Board Meeting of March 24, 2020

1.0 Decision

On March 24, 2020, the Wek'èezhìi Land and Water Board (the Board) met and considered Diavik Diamond Mines' (2012) (DDMI) request to change Part E of the Surveillance Network Program (SNP) of its Type A Water Licence W2015L2-0001 (the Licence). Specifically, DDMI has requested to decrease the sampling frequency for faecal coliforms, biological oxygen demand (BOD₅), and oil and grease at SNP stations 1645-18 and 1645-18B (i.e., main effluent discharge) from once every seven days to once every calendar quarter.¹ After reviewing the submission and evidence provided during the public review, the Board has decided to approve the request to change the sampling frequency of SNP stations 1645-18 and 1645-18B.

2.0 Background

The Surveillance Network Program (SNP) is required by Part B, Condition 9 of DDMI's Licence.² Part B, Condition 10 of the Licence states that the SNP may be updated at the Board's discretion. Currently, the SNP annexed to the Licence requires DDMI to test sewage parameters for SNP stations 1645-18 and 1645-18B at 7-day intervals. SNP stations 1645-18 and 1645-18B have been established to confirm compliance

¹ See WLWB (www.wlwb.ca) Online Registry for [Diavik - SNP - Update Request - Sampling Frequency of Select Parameters at 1645-18 and 1645-18B - Dec 20 19.pdf](#)

² See WLWB Online Registry for [Diavik - Water Licence - Schedule 1, Schedule 6 and SNP Updates - Jun 13 18.pdf](#)

with the effluent quality criteria (EQC) and provide information about effectiveness of the treatment plant. In its request, DDMI proposed reducing the sampling frequency from once every seven days to quarterly (i.e., once every three months). DDMI stated that this “would allow for the efficient use of human/other resources and enable continued and effective sampling and monitoring of these parameters prior to the discharge of North Inlet Water Treatment Plant (NIWTP)-treated effluent to the external receiving environment”.³

The SNP Update Request (the Request) was distributed for public review on February 10, 2020. Reviewers were asked to provide comments by March 2, 2020. One comment/recommendation was received from the Government of Northwest Territories - Department of Environment and Natural Resources - Environmental Assessment and Monitoring Section (GNWT-ENR-EAM); Fisheries and Oceans Canada (DFO) and the Wek’ézhii Renewable Resources Board (WRRB) both indicated that they had no recommendations at this time. Proponent responses were submitted by the deadline of March 9, 2020. Reviewer comments and recommendations, as well as proponent responses, are available on the WLWB online registry.⁴

3.0 Reasons for Decision

After reviewing the submission and evidence provided during the public review, the Board has decided to approve the request to change the sampling frequency of SNP stations 1645-18 and 1645-18B. The reasons for this approval include the following:

- In the Request, DDMI stated that:

To date, test results have shown that the concentrations of these parameters in the NIWTP-treated effluent have been consistently and significantly below the Effluent Quality Criteria (EQC) thresholds (maximum average concentrations and maximum concentration of any grab sample) established for these parameters in the Diavik Water Licence..... DDMI is of the opinion that, from an environmental risk-management perspective and based on the supporting information presented in this submission, there is a rare likelihood of an exceedance of established EQC thresholds for these parameters for samples collected at the points of effluent discharge.

- The Board understands that the short sample hold times for some of these parameters make regular testing challenging for DDMI and note that DDMI stated:

...quarterly sampling frequency for Faecal Coliforms, BOD5, and Oil and Grease at the two SNP stations (1645-18 and 1645-18B) would allow for the efficient use of human/other resources and enable continued and effective sampling and

³ See WLWB Online Registry for [Diavik - SNP - Update Request - Sampling Frequency of Select Parameters at 1645-18 and 1645-18B - Dec 20 19.pdf](#)

⁴ See WLWB Online Registry for [Diavik - SNP Update Request - SNP Stations 1645-18 and 1645-18B Update Request - Review Summary and Attachments - Mar 4 20.pdf](#)

monitoring of these parameters prior to the discharge of NIWTP-treated effluent to the external receiving environment.

- No concerns were raised during the public review regarding DDMI's SNP Update Request.
- In response to GNWT-ENR-EAM's comment that the sampling frequency may need to be reassessed if quarterly samples show values trending above the current maximum values for any of the three parameters (i.e., faecal coliforms, BOD₅, and oil and grease), DDMI confirmed that the proposed quarterly sampling frequency for the three parameters will be reconsidered if quarterly sampling shows values trending above the current maximum average effluent quality criteria values for these parameters. (see GNWT-ENR-EAM comment 1 and DDMI's response).
 - **Decision #1: The Board has approved the request to change the sampling frequency of faecal coliforms, biological oxygen demand (BOD₅), and oil and grease at SNP stations 1645-18 and 1645-18B from once every seven days to once every three months.**

Signed the 24th Day of March 2020, on behalf of the Wek'èezhii Land and Water Board



Witness



Joe Mackenzie
Chair, Wek'èezhii Land and Water Board