Water Resources Division Resource Management Directorate Nunavut Regional Office P.O. Box 100 Igaluit, NU, X0A 0H0

> Your file - Votre référence 2BE-MLL1722 Our file - Notre référence GCDocs# 110413142

March 03, 2023

Robert Hunter Licensing Administrator **Nunavut Water Board** P.O. Box 119 Gjoa Haven, NU, X0B 1J0 E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the Licence Renewal Application for Wish-Bone Malley Project, Type B Water Licence No. 2BE-MLL1722

Dear Robert,

Thank you for the February 7, 2023 invitation to review the referenced licence renewal application, submitted by Sabina Gold & Silver, for Type B Water Licence No. 2BE-MLL1722.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the Nunavut Waters and Nunavut Surface Rights Tribunal Act and the Department of Crown-Indigenous Relations and Northern Affairs Act. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact me at (867) 975-3877 or Joyce.Demers@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Joyce Demers, B.Sc., Industrial Coordinator



Technical Review Memorandum

Date: March 03, 2023

To: Robert Hunter – Licence Administrator, Nunavut Water Board

From: Joyce Demers – Industrial Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's Review of

the Licence Renewal Application for Wish-Bone Malley Project, Type B

Water Licence No. 2BE-MLL1722

Region: 🛛 Kitikmeot 🗌 Kivalliq 🔲 Qi	Qikiqtani
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A. BACKGROUND

Sabina Gold & Silver Corp. (Sabina) is a Canadian based company. Sabina is currently active with two projects called the Back River Project and Wishbone Project in the Kitikmeot region of Nunavut.

The Back River Project has multiple sites called: Goose, George, Del, Boot and Boulder. The Wishbone Project is comprised of the Malley and Wishbone properties which are located approximately 60 km west of the Goose property, 120 km south of Bathurst Inlet, 400 km southeast of Kugluktuk and 390 km southwest of Cambridge Bay. Where overlap exists between the different projects water licenses 2BE-GOO2028 or 2BE-GEO2025 will supersede water license 2BE-MLL1722.

Sabina is applying for a 5 year renewal of the Type B water license 2BE-MLL1722 with no amendments which relate to the exploration of the Wishbone Area. The water license remains 200 m³/day, 70 m³/day being for domestic use and 130 m³/day being for drilling activities.

The exploration may include the following: staking, prospecting, reconnaissance geology, geological mapping, geochemical surveys, aerial, ground and down hole geophysical surveys, mechanical and hand trenching/stripping, up to four drill rigs, construction of ice airstrip, transport of fuel and drilling supplies as well as storing of those materials, seasonal camp up to 60 persons, incinerator, core logging/cutting facilities and storage, temporary camps up to 30 persons, transport of personnel to and from existing Goose camp, temporary camp and drill sites via helicopter and fixed wing plane transport to and from Goose camp to communities.

The Wishbone Project currently does not have any infrastructure, instead Sabina are using the Back River Project infrastructure. The Back River Project is used to support the Wishbone Project for resupplying, staging, drill support, waste management and emergencies. However, the application does state that Sabina may build a seasonal camp

that can house up to 60 people if needed to help support future exploration activities. Exploration of the Wishbone Project typically starts in February or March and ends by October.

Crew, equipment and supplies are first transported to Goose Lake or George Lake exploration camp via air from Yellowknife or by sea from the Marine laydown area. Crew, equipment and supplies are then deployed from the camp to the Wishbone Project area of interest typically by helicopter or winter trail.

CIRNAC provides the following comments and recommendations pertaining to the application package. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

Table 1: Summary of Recommendations

Recommendation Number	Subject
R1	Treatment of Water Contaminated with Fuel
R2	Building Structures Burned on Site
R3	Spill Contingency Plan
R4	Spill Contingency Plan Greywater Release
R5	Spill Contingency Plan Contact Water with Oily Sheen
R6	Consolidation Trench

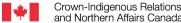
B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
230203 2BE-MLL1722 Abandonment and Restoration Plan - Appendix A-ILAE	Sabina Gold & Silver Corp., May 2022
230203 2BE-MLL1722 Abandonment and Restoration Plan-ILAE	Sabina Gold & Silver Corp., May 2022
230203 2BE-MLL1722 Certificate of Amendment of Registration-ILAE	Sabina Gold & Silver Corp., October 27, 2009
230203 2BE-MLL1722 Executive Summary-ILAE	Sabina Gold & Silver Corp., July 7, 2022
230203 2BE-MLL1722 Exploration Waste Management Plan-ILAE	Sabina Gold & Silver Corp., June 2022
230203 2BE-MLL1722 NIRB Screening Decision Report (File No. 06EN033)-ILAE	Nunavut Impact Review Board, May 15, 2006

Document Title	Author, File No., Rev., Date
230203 2BE-MLL1722 NIRB Screening Decision Report (File No. 08EA084)-ILAE	Nunavut Impact Review Board, March 3, 2009
230203 2BE-MLL1722 Non technical Project Summary-English-ILAE	Sabina Gold & Silver Corp., N.D.
230203 2BE-MLL1722 NPC Conformity Determination NPC #148494-ILAE	Nunavut Planning Commission, March 22, 2017
230203 2BE-MLL1722 NPC Conformity Determination NPC #149780-ILAE	Nunavut Planning Commission, August 11, 2022
230203 2BE-MLL1722 Project Map-ILAE	Sabina Gold & Silver Corp., N.D.
230203 2BE-MLL1722 Renewal Application Wishbone-Malley Project-ILAE	Nunavut Water Board, April 2013
230203 2BE-MLL1722 SCP-Appendix A. Sabina Spill Response Team-ILAE	Sabina Gold & Silver Corp., May 2022
230203 2BE-MLL1722 SCP-Appendix B. NWT-NU Spill Reporting Form-ILAE	Northwest Territories Nunavut, N.D.
230203 2BE-MLL1722 SCP-Appendix C. Sabina Internal Spill Reporting Form-ILAE	Sabina Gold & Silver Corp., N.D.
230203 2BE-MLL1722 SCP-Appendix D. Site Spill Kit Location Maps-ILAE	Sabina Gold & Silver Corp., June 2018
230203 2BE-MLL1722 Spill Contingency Plan-ILAE	Sabina Gold & Silver Corp., May 2022
230207 2BE-MLL1722 Distribution Review after NPC NIRB-OLAE	Nunavut Water Board, February 7, 2023
230207 2BE-MLL1722 notice-OLAE	Nunavut Water Board, February 7, 2023
170630 2BE-MLL1722 Renewal Licence-OSJE	Nunavut Water Board, June 30, 2017



C. RESULTS OF REVIEW

1. Treatment of Water Contaminated with Fuel

Comment:

The applicant states in the Abandonment and Restoration Plan under section 3.2.1.1 that

"For water with minor amounts of hydrocarbons, an oil-water separator may be used and/or activated charcoal filters".

The concern is that a carbon filter might not be sufficient in removing the contamination from the water therefore may lead to contamination ending up in a waterbody if it is discharged less than 31 meters away from any normal high watermark of any waterbody.

Recommendation:

(R-01) CIRNAC recommends that the applicant state how they will test the treated water, to confirm that it is safe to be deposited into the environment, prior to discharge.

2. Building Structures Burned on Site

Comment:

The applicant states in the Abandonment and Restoration Plan under section 5.1.1 that

"Other combustible, non-recyclable building structures will be incinerated off site or burned onsite".

This is a concern as the applicant does not state how they will be burning the material; such as open burning, or burn cage to include some examples. Please note that CIRNAC does not recommend open burning of materials.

Recommendation:

(R-02) CIRNAC recommends that the applicant clarify how they plan on burning the building structures on site.

3. Spill Contingency Plan

Comment:

Spill contingency plan is three different licenses in one and has more information that are not related to this process and is not specific to the wishbone area.

Recommendation:

(R-03) CIRNAC recommends that when submitting a final version of the spill contingency plan that the applicant removes the areas that do not pertain to the wishbone area and that the information presented is that for only water license 2BE-MLL1722.

4. Spill Contingency Plan Greywater Release

Comment:

The applicant states in the Spill Contingency Plan under section 2.2 that

"Greywater from the kitchen and shower facilities is screened for coarse particles (e.g., food), and released to a sump for settling, after which it is released to the environment at least 31 m away form the closest waterbody".

This is a concern as it is not clear if the applicant plans on removing the water from the sump mechanically into another location or if the applicant is stating that from within the sump the water will naturally percolate.

Recommendation:

(R-04) CIRNAC recommends that the applicant clarify how greywater will be released into the environment.

5. Spill Contingency Plan Contact Water with Oily Sheen

Comment:

The applicant states in the Spill Contingency Plan under section 2.2 that

"Water collected in temporary berms is discharged using an oil/water separator unless an oily sheen is noted".

The applicant does not state what will be done in the event that an oily sheen is observed.

Recommendation:

(R-05) CIRNAC recommends that the applicant clarify what will happen with contact water that was observed to have an oily sheen.

6. Consolidation Trench

Comment:

The applicant states in the Exploration Non-Hazardous Waste Management Plan under section 3.5 that

"Mineral waste from drilling with brine or rock saw use is collected, consolidated through settlement and/or drying, and transported to a designated cuttings consolidation trench for permanent disposal".

The water license 2BE-MLL1722 defines a sump as

"A structure or depression that collects, controls, and filters liquid waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid waste"

It is unclear is the applicant meant by a consolidation trench.

Recommendation:

(R-06) CIRNAC recommends that the applicant clarify what is meant by a consolidation trench.