

1 Introduction

1.1 General

This document has been prepared in response to comments received by various government agencies and organizations following their review of the Wolverine Project Environmental Assessment Report (EAR, November 1, 2005). The information in this document supplements and in some cases supersedes the data and interpretations provided in the EAR. The following submissions were reviewed in preparation of this document:

- Environment Canada
- Natural Resources Canada
- Yukon Executive Council Office and SRK Consulting
- Yukon Government, Department of Environment (Environment Yukon)
- Transport Canada
- Fisheries and Oceans Canada
- Yukon Government, Archeology Branch
- Yukon Government, Protective Services
- Yukon Government, Department of Tourism and Culture
- Yukon Conservation Society
- Ross River Dena Council
- Teslin Outfitters Ltd.
- Frances Lake Wilderness Lodge and Tours

Tables of conformance are provided at the beginning of each section.

1.2 Report Organization

The general structure of this report and brief description of the section content is as follows:

- Section 1 provides a summary of the report content and an update on the project layout and engineering design for the mine and ore processing facilities.
- Sections 2 to 5 provide response information pertaining to climate and air quality; surficial geology and vegetation; wildlife; hydrology and aquatic resources.
- Section 6 provides detailed documentation on the geological sampling methodology of the project, the revised mine plan and mining methods, a summary of the underground water quality model (with a detailed report provided in Appendix D), and the revised hydrogeological assessment.

- Section 7, which supersedes EAR Section 2.8 Tailings Facility, provides the engineered design and operational details for this facility.
- Section 8 provides documentation pertaining to the 2005 construction and use of temporary waste rock pad.
- Section 9, which supersedes EAR Section 2.9 Site Water Management, contains revised water balances and describes water management and treatment for the duration of the project (including closure).
- Sections 10 and 11 respond to specific comments from the Yukon Conservation Society, the Ross River Dena Council and Teslin Outfitters Ltd..

1.3 Project Description Update

The layouts for the overall project site and the Industrial Complex have been updated to reflect additional engineering work that has progressed since the submission of the EAR. Figure 1-1 shows the overall layout, while Figure 1-2 and Figure 1-3 provide the plan view and cross section for the Industrial Complex. In comparison to EAR Figures 2.1-1 and 2.2-2 that provide the overall and Industrial Complex layouts, there are no major changes to facility location or scale.

Figure 1-1 Overall Project Layout (Figures Section)

Figure 1-2 Industrial Complex Area Layout (Figures Section)

Figure 1-3 Industrial Complex Sections (Figures Section)

Figure 1-2 shows the site runoff collection ditches and surface runoff diversion ditch around and upslope of the industrial complex, respectively. The ditches have been designed in accordance with criteria outlined in Section 7.9 and design flows for the catchment area for a 50-yr event; a typical ditch cross-section is provided on Figure 7.9-1. The site collection ditches discharge to a 1320 m³ settling pond located at the south end of the industrial area. Based on the 100,000 m² catchment (10 ha), a 50-year, 24 hour rainfall event of 50 mm, and assuming 0.22 for the run-off coefficient, the pond size required is 1100 m³. Pumps have been sized to discharge the entire sump volume within a 24 hr period to the tailings facility.

The detailed flowsheet for the process plant water balance has also been refined to reflect additional process testwork and engineering, as shown in Figure 1-4. This flowsheet replaces EAR Figure 2.6-11, and the volumes shown in Figure 1-4 will be used in subsequent sections in this report (Sections 7 and 9).

The tailings facility design and operational details have been revised to incorporate additional engineering, geochemical analyses and environmental protection measures, and they are presented in Section 7. The tailings/reclaim pipeline in profile and in section from the process building to the tailings facility are shown in Figure 1-5. All other details pertaining to the tailings facility are provided in Section 7.

Figure 1-4 Process Plant Water Balance Flowsheet (Figures Section)

Figure 1-5 Tailings/Reclaim Pipeline Plan, Profile and Section (Figures Section)

As a point of clarification, the study area boundaries for the Wolverine Project with respect to biophysical components discussed in Section 2 to 5, vary according to the nature of the valued ecosystem and cultural component, (VECC) but generally are defined in terms of:

- A local study area (LSA), where direct project effects can be predicted with a reasonable degree of accuracy and confidence and impacts are likely to be most concentrated. The LSA have been conservatively defined as to the total of YZC's claim areas potentially affected by industrial complex facilities and activities and include 100 m to 2 km wide buffers to account for project and component specific effects.
- A regional study area (RSA) where, depending on conditions (e.g., seasonal conditions, habitat use, more intermittent and dispersed project activities), project effects may be more wide reaching. The definition of the RSA may take into consideration factors such as:
 - habitat for sensitive life stages
 - wildlife migration routes and ranges
 - areas of potential effects from dispersed, intermittent project activities, such as, air transport or road haul
 - areas within which there is potential for cumulative effects with other projects

The rationale for study area definitions for the individual disciplines is described briefly with each section.