

Mine Development Assessment Process

BRALORNE GOLD PROJECT

*A report summarizing the reasons for the
decision relating to the issuance of a
Mine Development Certificate,
outlining commitments and permit, licence
and approval information requirements.*

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Province of British Columbia
Ministry of Energy, Mines
and Petroleum Resources
Ministry of Environment,
Lands and Parks

1.0 PURPOSE OF REPORT

In July 1994, an application for a Mine Development Certificate (MDC) was submitted to the province's Mine Development Assessment Process by Avino Mines and Resources Ltd. (Avino) for the development of the Bralorne Gold project.

The purpose of this report is to outline the reasons for the decision to issue a MDC to Avino for this project. It also identifies the commitments made or agreed to by Avino, and information related to various permits, licences and approvals that will be required as project development proceeds.

This report is based on the comments provided by provincial and federal review participants, as well as on consultation with public and aboriginal groups, and on the documents submitted in support of the application for a MDC. Review participant comments are attached in Appendix A to this report.

2.0 MINE DEVELOPMENT ASSESSMENT PROCESS OVERVIEW

The Mine Development Assessment Process (MDAP) integrates environmental protection with economic development by facilitating technically sound and environmentally acceptable mining ventures in British Columbia. Under the Mine Development Assessment Act, the assessment process sponsors and implements a comprehensive procedure for project review and approval by providing a "one window" point of contact, early identification of issues, and public and Aboriginal consultation programs.

The MDAP consists of two phases: pre-application and application. To facilitate the preparation and review of an application, companies are expected to submit a prospectus in the pre-application phase. This document briefly describes the project, potential environmental and socio-economic impacts, and proposed public and aboriginal consultation programs. Based on a review of the prospectus, terms of reference are developed to assist the company in preparing its application. Applications contain a detailed plan of the proposed mine development, as well as a detailed assessment of the impacts and mitigation programs proposed to address issues raised in the prospectus review. A MDC is issued when all policy and technical issues have been identified and resolved, or are determined to be resolvable at the permitting stage. A MDC allows a mining company to proceed to the permitting phase, where it may apply for all the statutory licences, permits and approvals required as project development proceeds.

3.0 SITE HISTORY AND PROJECT DESCRIPTION

The Bralorne area has been an active mining camp since placer gold was discovered in the Bridge River Area in 1863. The original Bralorne mine was established in 1932 and ceased operations in 1971. After unsuccessful attempts to reopen the Bralorne mine in 1974 and 1975,

the mine was shut down completely and much of the equipment removed from the mine and mill site.

In 1980, E & B Exploration Inc. acquired a fifty percent (50%) interest in the property and submitted a three-volume report in 1983, describing its plans to reopen the mine. A prospectus was submitted by the subsequent owners, Mascot Gold Mines, in 1988. The total Bralorne property was taken over by Avino in November 1991, and the above documents have been utilized by Avino in this most recent effort to permit the property for production.

The Bralorne mine is located in the Bridge River area of British Columbia (Figure 1) approximately 160 km due north of Vancouver and 65 km west of Lillooet. Access from Vancouver to the Bralorne mine and adjacent townsite is via the Trans-Canada Highway to Lytton, then to Lillooet and continuing on a gravel highway to Gold Bridge and the minesite, a total distance of approximately 460 km. The Bralorne mine can also be reached by travelling Highway #99 to Pemberton, and then by logging road along the Hurley River to Gold Bridge and Bralorne, or taking the Duffy Lake Road to Lillooet and then to Gold Bridge and the minesite.

The gold content of the ore from the Bralorne mine over the previous 40 years of operation averaged 0.53 ounces of gold per ton. Thirty-five veins have been traced in the workings of the Bralorne Mine. Of the initial ore reserves above the 1,000 level (322,000 st), 80%, or 264,000 st, are located in the 51 Vein and 51B FW Vein. These veins are proposed for development first. General access to both veins will be through surface adits at the 200 and 800 levels, and through the Empire Shaft for the other levels. Concurrent with development of the 51 and 51B FW Veins, other areas of the mine will be rehabilitated for access to other veins. All blocked-out ore reserves will be recovered by shrinkage stope mining. Eleven shrinkage stopes plus development ore reserves will be required to maintain the mill throughput of 450 TPD.

The proposed mill will be located at the site of the old Bralorne mill. Based on preliminary test work on ore samples reported in the feasibility study (E & B Explorations Inc., 1982), the milling operations are expected to be comprised of semi-autogenous grinding, gravity separation and floatation. Spent tailings fines will be placed in a tailings pond and coarse tailings will be returned to the mine workings. The updated milling plan proposes to process approximately 450 tonnes per day, without the use of cyanidation or mercury amalgamation.

The proposed ancillary facilities will include a 50 man camp, administration facilities, change house, mine equipment maintenance shop, warehouse, laboratory, water supply system, electrical system, sewage system, and tailings disposal site. Freshwater to the mill will be obtained from tailings pond reclaim and mine drainage water, with Cadwallader Creek only used as a water sources if the aforementioned sources are insufficient. Power for the project will be supplied from the B.C. Hydro grid system. All sewage will be treated in an approved manner to meet environmental and health standards. The tailings pond will be located about 1.25 km northwest of the proposed mill.