Mineral Inventory Project Activities for 2010

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Introduction

The activities of the Mineral Inventory Project during 2010 were divided among several, somewhat diverse, initiatives. These included: (1) development of an archiving system for rock samples and geochemical powders from analyzed samples, collected over the past 35 years by Mineral Inventory Project supervisor G. A. O’Reilly; (2) continued input of mineral occurrence information in the Mineral Occurrence Database (MODB); (3) field visits to select mineral occurrences in support of the data input activity; (4) mineral exploration promotion activities including preparation of, From the Mineral Inventory Files, articles for the Mineral Resources Branch (MRB) quarterly, Minerals Update Newsletter, and running of a field trip for the Nova Scotia Prospectors Association to examine the rare-earth element potential of Devonian-Carboniferous granitic and volcanic rocks in the Cobequid Highlands; and (5) participation in a provincial government committee planning an exhibition on the gold mining heritage of Nova Scotia scheduled to be unveiled in 2012.

Sample Archive Database

The running of MRB projects over the years results in collection of literally thousands of rock, glacial till and soil samples, however, the branch does not yet have a systematic and standard sample archiving and storage system. This most fundamental and important component of geological study has always been left up to the individual project(s). It is clear that implementation of some sort of standard sample storage system is long overdue so that important metadata information on collected samples is not lost when staff retires or relocates. The Mineral Inventory Project, as well as activities related to several other projects over the past 35 years, has resulted in the amassing of well over a thousand rock and rock powder samples. These samples have resided in several different locations and only a few had ever been properly catalogued. During this past field season considerable time was allocated to sorting through this backlog, downsizing and eliminating redundant samples, and systematically recording and preparing the remainder for proper storage at the department’s Stellarton Core Library facility. The recording of the sample metadata will be by way of a searchable database using Microsoft Excel®. The database will include fields to accommodate the most important sample information such as sample UTM coordinates, location, year of collection, collecting geologist and project, sample type and where it is now located. The structure of the database will be derived through discussion with several MRB staff in order that it will be diverse enough to accommodate samples collected from other MRB projects past and future. This will allow the database to serve as the starting point of a standard sample archiving system for the branch.

Mineral Occurrence Database

Data Input and Field Visits

Input of information on mineral occurrences in the MODB is an ongoing and critical component of the Mineral Inventory Project. This includes adding new mineral occurrences to the database as well as updating mineral occurrence records already contained within it. During 2010 these activities continued. In support of the data entry, field visits were made to a number of mineral occurrences (Fig. 1). Some of these locations are sites not yet in the database and are indicated as ‘New’ on Figure 1. A few of these new occurrences have since been added to the database and the Occurrence Number assigned to them is also
indicated on Figure 1. Several of the mineral occurrences visited during the year are already in the database, but required field checking in order to clarify their locations or they were sites at which recent exploration activities have taken place.

**Mineral Exploration Promotion**

The MRB takes its role very seriously in promotion and stimulation of mineral exploration in the province. The Mineral Inventory Project incorporates this policy in project activities by including a significant component of client service. For example, the project publishes an article known as *From the Mineral Inventory Files*, featuring various mineral deposits from across the province in each of the MRB quarterly Minerals Update Newsletters. During 2010 the mineral deposit areas featured were the potential for rare metal deposits in the eastern Meguma Terrane; iron oxide-copper-gold (IOCG) style mineralization at Kells Lake, Guysborough County; the provinces past history of diatomite mining with the Oxford-Tripoli Mine as an example; and shear-related Au mineralization at Schoolhouse Brook, Yarmouth County. These articles continue to be very popular with the local mineral exploration community.

Having an informed and active prospector segment of the mineral exploration industry is important...
because it is widely known that most new mineral exploration plays originate from the grassroots prospector. The MRB supports our prospectors in several ways, one of which is the running of periodic field trips. This past fall, G. A. O’Reilly of the Mineral Inventory Project along with Mineral Deposits geologist T. G. MacHattie and Prospectors Assistance geologist R. F. Mills ran a field trip for the Nova Scotia Prospectors Association to examine the potential for deposits of rare-earth elements (REE’s) associated with the Devonian-Carboniferous granitic and volcanic rocks of the Cobequid Highlands.

Exhibition on the Gold Mining Heritage of Nova Scotia

Early in 2010, the MRB was approached by the Nova Scotia Museum of Industry in Stellarton about helping with the planning of an exhibition on past gold mining in the province. The Museum of Industry had derived the idea of such an exhibit to serve as the centrepiece of a National Industrial Heritage Conference scheduled for the Stellarton Museum for the fall of 2012. The Art Gallery of Nova Scotia and the Nova Scotia Archives expressed interest in partnering with the Museum of Industry to develop an exhibition that would include art works and historical photos of gold mining activities included in their collections. An Exhibit Planning Committee was struck and a request was made to the MRB to come on as a partner. The request was readily accepted and G. A. O’Reilly was assigned to represent Natural Resources on the committee.

The organizing committee is headed by the Nova Scotia Museum of Industry and has representatives from the Art Gallery of Nova Scotia, Nova Scotia Archives, Nova Scotia Museum of Science and the Department of Natural Resources. It is our intention that the exhibit will focus on 6 themes: (1) Geology and Natural History of Gold; (2) History of Gold Mining in Nova Scotia; (3) Consequences of our Past Gold Mining; (4) Gold Mining Today; (5) Artistic and Industrial Landscape; and (6) Uses of Gold. The exhibit will be unveiled in the Art Gallery of Nova Scotia in the spring of 2012. Following that, the exhibit will travel to a variety of museum venues across the province over the summer and end as the centrepiece of the Industrial Heritage Conference at the Stellarton Museum of Industry in the fall.

Several organizations related to the mineral exploration and mining industries have been approached about partnering in production of the exhibit. These include the Mining Association of Nova Scotia, the Mining Society of Nova Scotia, the Nova Scotia Prospectors Association and the Atlantic Geoscience Society. To date, response from these organizations has been very positive. Given the allure and attraction that anything to do with gold has, an exhibit of this sort is an excellent opportunity for the gold mining industry, and the mining industry in general, to present itself to the public in a positive light.

Reference