Overview of Trends in Canadian mineral exploration

Canadian Intergovernmental Working Group
on the Mineral Industry

2003

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COVER PHOTO BY GARY DELANEY, SASKATCHEWAN INDUSTRY AND RESOURCES

The cover photo shows the headframe for the shaft and the support camp at Shore Gold Inc.'s Star diamond project, in the Fort-à-la-Corne forest, 60 km east of Prince Albert, Saskatchewan. This project is designed to recover a parcel of at least 3000 carats of diamonds to enable an accurate valuation of the stones. Up to 25 000 tonnes of kimberlite will be recovered from the shaft and drifts and will be processed on site to produce this diamond parcel.

Preface

This report is prepared annually, on behalf of the Intergovernmental Working Group on the Mineral Industry (IGWG), for presentation to federal, provincial and territorial mines ministers. It contains information, current as of October 2003, on recent exploration and deposit appraisal spending levels in Canada, a review of exploration and deposit appraisal activities in the provinces and territories, and analyses of domestic and international trends affecting the Canadian mineral exploration sector.

The analyses, articles and reviews found in this report were prepared by officials from respective provincial/territorial departments responsible for mineral exploration and from Natural Resources Canada (NRCan). The Minerals and Metals Sector of NRCan was responsible for compiling, editing, producing and distributing this report, which covers exploration and deposit appraisal activities for metallic minerals, nonmetallic minerals, coal and uranium. It does not refer to petroleum-related work.

The report can be accessed on the Internet at www.nrcan.gc.ca/mms/pubs/explor_e.htm.

NOTE TO READERS

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Government Contacts/ Information Requests

For further information on specific issues related to this report (i.e., exploration activities, incentives and programs, rules and regulations, geoscientific data, etc.), the reader is invited to contact the appropriate federal, provincial or territorial authorities at the telephone numbers listed below or to consult their respective web sites. The contact information for officials who prepared the provincial/territorial sections are also provided at the beginning of each of these sections while the NRCan officials who participated in the preparation of this report are listed below. Prince Edward Island is not included because of a current lack of mineral exploration activity.

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Executive Summary

Statistics from the federal-provincial/territorial Survey of Mineral Exploration, Deposit Appraisal and Mine Complex Development Expenditures show that all-inclusive exploration and deposit appraisal spending has rebounded after declining significantly from the 1997 level of $921 million to $497 million in 2000. Most of that decline occurred in 1998 when expenditures dropped by $265 million (29%) to $656 million. Another significant decline of 23% occurred between 1998 and 1999 when exploration and deposit appraisal expenditures dropped by a further $152 million to $504 million.

The recovery began in 2001 when expenditures of $513 million were recorded and it gained momentum in 2002 with spending of $573 million. Company spending intentions of $684 million for 2003 (compiled in August 2003) indicate further strengthening of the Canadian mineral exploration and deposit appraisal sector. The exploration work phase, which has experienced steady improvement since 2000, is expected to account for 76% ($521 million) of this $684 million total while the remaining 24% ($163 million) is expected to be incurred for deposit appraisal activities.

Factors that contributed to this recovery include stronger metal prices, exciting diamond discoveries, timely tax incentives, and easier access to capital markets. At the end of 2003, all of these factors appeared poised to continue to positively influence spending in 2004. A cloud on the horizon is that most of the temporary federal/provincial tax credits that were introduced in recent years to boost flow-through-share-financed activity are scheduled to lapse at the end of 2004.

Along with the other factors mentioned above, these exploration tax credits have helped turn around a struggling Canadian junior mining sector. For 2003, junior company spending, which had been particularly affected by the downturn that began after 1997, is expected to be higher for the fourth consecutive year and to reach a level of $281 million.

While a stronger junior mining sector and an increase in grass-roots exploration are good news, increased deposit appraisal, on-mine-site and senior company spending are needed to add to the inventory of economically mineable deposits and replace depleted ore reserves at existing mines. As a group, senior companies have severely curtailed their exploration and deposit appraisal budgets in recent years. A forecast increase of their spending to $404 million for 2003 and a positive metals prices outlook could lead to a more intense effort by this type of company.

A breakdown of expenditures by commodity sought is only available for 2002, but the shift in the traditional distribution of exploration and deposit appraisal funds that was identified for 2001 was again evident. Diamonds-related expenditures surpassed those aimed at discovering base metals for the second year in a row. With exploration and deposit appraisal expenditures of $162 million in 2002, diamonds continued to draw considerable interest from both junior and senior companies, second only to precious metals.

As detailed in the Regional Outlook section of this report, many interesting exploration and deposit appraisal projects are currently under way in Canada. Federal, provincial and territorial governments continue to support and promote exploration and deposit appraisal activities in their respective jurisdictions through various initiatives, including innovative fiscal incentives, the resolution of land access issues, and the provision of state-of-the-art geoscientific data.

Canada now ranks first in terms of countries where the world's larger mineral exploration companies are the most active, being the recipient in 2002 of 16% of these companies' investments in exploration. As for the larger Canadian companies, they were expected to undertake 32% of all the exploration programs in the world in 2002, a share that is by far the largest of the global mineral exploration market.

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ABBREVIATIONS

The reader should note that a number of abbreviations for common units of measurement appear in the text:

cm	centimetres
ct	carats
ct/t	carats per tonne
ct/y	carats per year
ft	feet
g	grams
g/t	grams per tonne
ha	hectares
kg	kilograms
km	kilometres
km^2	square kilometres
lb	pounds
m	metres
Mct	million carats
Mct/y	million carats per year
Mha	million hectares
Mt	million tonnes
Mt/y	million tonnes per year
oz	troy ounces
oz/y	ounces per year
ppb	parts per billion
ppm	parts per million
st	short tons
t	tonnes (metric)
t/d	tonnes per day
t/y	tonnes per year
tU	tonnes of uranium

Note: Unless specified otherwise, all dollar figures are in Canadian dollars.