

N

unavut

MINING MINERAL EXPLORATION AND GEOSCIENCE 2003



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

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A Note About the Overview

This overview is a combined effort of four partners: the Mineral Resources Section of Indian and Northern Affairs Canada (INAC); the Lands and Resources Department of Nunavut Tunngavik Inc; the Environment and Integrated Resource Management of the Government of Nunavut; and the Canada-Nunavut Geoscience Office. The intent of this edition is to capture information on exploration and mining activities in 2003, and to make this information available to the public. INAC contributors obtained all exploration information prior to mid-November 2003.

The overview is organized according to the commodity being sought for or produced: diamonds, gold, or base metals.

Prospectors and mining companies are welcome to submit information on their programs for inclusion in the next overview. We thank the many contributors who submitted information for this edition. Feedback and comments are appreciated.

All dollar figures noted in the text are Canadian dollars, unless otherwise indicated.

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Land Tenure in Nunavut

Guide to Acronyms

CMR	Canada Mining Regulations
C-NGO	Canada-Nunavut Geoscience Office
INAC	Indian and Northern Affairs Canada
GSC	Geological Survey of Canada
IOL	Inuit Owned Land
E&IRM	Environment & Integrated Resource Management
DSD	Department of Sustainable Development
NLCA	Nunavut Land Claims Agreement
NTI	Nunavut Tunngavik Incorporated
RIA	Regional Inuit Association
NRCan	Natural Resources Canada

In 1993 the largest Aboriginal land settlement in Canadian history was concluded through the Nunavut Land Claims Agreement (NLCA). The NLCA provided for the formation of the new territory of Nunavut on April 1, 1999, as well as providing many other rights to Inuit. Nunavut, which covers 1,994,000 square km, comprises the eastern and northern portions of land previously referred to as the Keewatin and Franklin districts of the Northwest Territories. Nunavut's population approximates 27,000, 85% of which is of Inuit origin. A total of 27 communities are home to anywhere from 50 to 6,000 people. Most communities offer a range of services (visit the Canada-Nunavut Community Business Service Centre website: <http://www.cbcs.org/nunavut>), including regular scheduled air service. Several offer specific mining and exploration-related services, and are home to independent prospectors and others experienced in mineral exploration and mining.

In addition to the creation of the new territory, the NLCA gave Inuit fee simple title to 356,000 square km of land. There are 944 parcels (16% of Nunavut) of Inuit Owned Lands (IOL) where Inuit hold surface title only (Surface IOL). The Crown retains the mineral rights to these lands. Inuit also hold fee simple title including mineral rights to the remaining 150 parcels of IOL (Subsurface IOL), which total 38,000 square km and represent approximately 2% of the territory. Surface title to all IOL is held in each region by one of the three Regional Inuit Associations (RIAs) while Inuit subsurface title with respect to Subsurface IOL is held and administered by Nunavut Tunngavik Incorporated (NTI). NTI issues rights to explore and mine through its own mineral tenure regime. Mineral rights (mineral claims or leases) that existed at the time of the signing of the NLCA — known as grandfathered rights—continue to be administered by Indian and Northern Affairs Canada (INAC) until they terminate or the holder transfers its interests to the NTI regime. For both Surface and Subsurface IOL, access to the land, through a Land Use Licence or Commercial Lease, must be obtained from the appropriate Regional Inuit Association.

Significantly, the NLCA is a final settlement whereby all land claims in Nunavut have been settled with the Inuit of Nunavut, thus providing an unmatched level of land tenure certainty. However, land claims overlapping Hudson Bay and the southernmost Kivalliq are being negotiated with residents of northern Quebec and northern Manitoba, respectively. The Government of Nunavut, INAC, NTI, the C-NGO and other pertinent government divisions and associations are working together to improve the territory's geoscience knowledge base through regional mapping programs, thematic investigations, and geological compilation.

The Crown owns mineral rights to 98% of Nunavut. INAC administers rights through the Canada Mining Regulations (CMR). This includes Surface IOL, for which access to the land must nevertheless be obtained from the RIA as explained above. Visit the following websites for more information:

http://www.polar.net.ca/ntilands/Exploration_App.htm

<http://npc.nunavut.ca/eng/index.html>

<http://www.pail.ca>



Indian and Northern Affairs Canada: Nunavut Regional Office

Indian and Northern Affairs Canada (INAC) administers mineral tenure on Crown land in Nunavut. The Nunavut Regional Office, based in Iqaluit, has two divisions involved in regulating mineral tenure — Mineral Resources and the Mining Recorder's Office, a part of Land Administration.

The Mining Recorder's Office issued 190 prospecting permits in February, mostly on the Melville Peninsula. Others were issued for areas of Victoria Island and the mainland around Rankin Inlet and Wager Bay. As of mid-November, the Mining Recorder's Office had also received 1,927 applications to record claims.

The Mineral Resources Division is involved in mineral tenure through the review of assessment reports filed under the Canada Mining Regulations, (CMR) and through property visits to mines and exploration projects. This year, the division's district geologists visited 10 projects, primarily in the Kitikmeot and Qikiqtani regions.

Three of the Minerals staff were involved in field research projects this year. Paul Gertzbein worked with the Canada-Nunavut Geoscience Office (C-NGO) on the North Baffin project, examining a number of mineral showings. Paul also continued his work on the coloured gemstones around Kimmirut. Robert Carpenter lent his expertise to ongoing thesis projects at Lupin and Hope Bay and defended his Ph.D. on the Meliadine West gold camp. Jason Sharp and summer student Markoosie Arsenault-Papatsie joined NTI's field crew in the Whale Cove area for two weeks, examining historical gold showings on Crown and Inuit-owned land.

Jurate Gertzbein has taken on the position of Mineral Development Advisor, and is working with Mining Recorder's Office staff on the amendments to the CMR. Jurate is also coordinating production of a guide to Nunavut's regulatory environment for release in 2004. Jurate and Jason collaborated with other INAC staff with regards to environmental



assessments of the Jericho and Doris North projects.

Andrea Mills, the new Kivalliq District Geologist, led INAC's role in helping to organize the 2003 Nunavut Mining Symposium in Iqaluit. Andrea and Rob also worked with colleagues from C-NGO to schedule Nunavut talks for the 2003 Yellowknife Geoscience Forum.

The Archives has now scanned 808 of its 3,734 assessment reports, on an "as needed" basis. New Archives Geologist Elaine Little has started working on the division's website, with the goal of having it upgraded in time for the winter conference season.



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Government of Nunavut

The Government of Nunavut's Department of Sustainable Development (DSD) deals with issues related to Nunavut's minerals industry. DSD is committed to establishing a sustainable and vibrant minerals industry across the territory, which contributes to the sustenance of healthy communities throughout Nunavut.

DSD focuses on community education and awareness, supports prospector development, and is committed to improving the geoscience database and upgrading transportation and human infrastructures. DSD is also committed to resource management, modernization of land use legislation and development of an exemplary mineral industry policy. DSD functions as liaison between industry and communities, local service sectors, educational institutions, work forces, and prospectors. These efforts will lead to improved investor confidence, which is already very strong.

DSD recently underwent a reorganization leading to amalgamation of its Minerals, Parks, Ecosystems Research and Environmental Protection Divisions under a new title, Environment and Integrated Resource Management (E&IRM). This new division's mandate is to integrate Land and Resource management within the Government of Nunavut. This integrated format permits seamless consideration of projects from the Environmental and Protected Areas perspective in addition to the geological side of the issue, and will allow GN geologists to provide more pertinent advice to exploration companies with regards to all facets of the proposed work. E&IRM maintains offices in Iqaluit, Arviat & Kugluktuk, the latter two being staffed by a Resident Geologist and a Community Mining Advisor. Headquarters are in Iqaluit.

It is the aim of the DSD to increase the role of Inuit in industry and in government; to accomplish this, DSD is actively involved in developing plans for mine-related training facilities within Nunavut. Furthermore, DSD's Community Mining Advisor program employs

young Inuit for the summer months, and provides funding for the Advisors to attend university in the fall/winter. This program has been in place for a year and has been highly successful.

Educations and Training Programs

Mineral Exploration Field Assistant's Course

The Mineral Exploration Field Assistant's Course was first held in May of 2001 at the Nunavut Arctic College in Iqaluit. This multi-partnership, eight-week training for employment course introduced 12 students to fundamental geologic fieldwork concepts and methods that are used in mineral exploration. This primer course introduced students to the business, scientific and technical nature of mineral exploration as a whole, and offered them the opportunity to pursue a career in the minerals industry. Due to the success of the pilot course, DSD is examining options for delivering this course on a regular basis.

Prospector Development - Nunavut Prospector's Program (NPP)

Initiated in 1999, the NPP provides financial and technical assistance to Nunavut prospectors. Several prospectors have made significant mineral discoveries over the past four years, culminating recently in three prospectors signing an option agreement for a property in the Baffin region. This year, 26 prospectors from across Nunavut received funding of up to \$5,000 through the program. A total of 12 NPP-supported prospectors hold mineral claims in Nunavut, with interesting gold, platinum, base metal, and gemstone (sapphire & diamond) prospects. As mentioned above, three prospectors have recently completed an option agreement with Vancouver-based True North Gems.

Introductory Prospecting Course

A six-day Introductory Prospecting Course is delivered in communities throughout Nunavut every year. Since 2000, the courses have been





offered in all communities in the territory, with over 350 graduates to date. Popular with prospectors and individuals with a general interest in mineral exploration and mining, the course is an introduction to rock and mineral identification, map reading, sample collection and claim staking. The course is a stepping-stone for people who want to pursue prospecting as a career and/or hobby, building on the Inuit traditional knowledge of the land. Many people who take the course subsequently find employment with exploration companies active in their areas. In September 2002, a 10-day intensive advanced prospector's course was held at the Lupin Mine. Nine prospectors from various communities attended and completed the course. DSD is looking into providing this course again in the near future.

grades 7-12 in Rankin Inlet, Arviat and Kugluktuk. DSD geologists also participate in Mining Week activities and Career Fairs in various communities in Nunavut. School presentations were also made by DSD, INAC, NTI and C-NGO geologists to Iqaluit students during the Nunavut Mining Symposium, held October 6-8, 2003. These presentations discussed geology, career options, and earth science education requirements.

In April, 2002, DSD launched the High School Math and Science Awards Program. The program encourages and motivates high school students to pursue interests and careers in math, science and technology. The program recognizes exceptional performance in math and/or science through a cash award of \$175, \$275 and \$350 to a Grade 8, 10 and 12 student respectively.

Supporting Schools

DSD geologists gave a total of 15 lectures on geology and geological careers to students in

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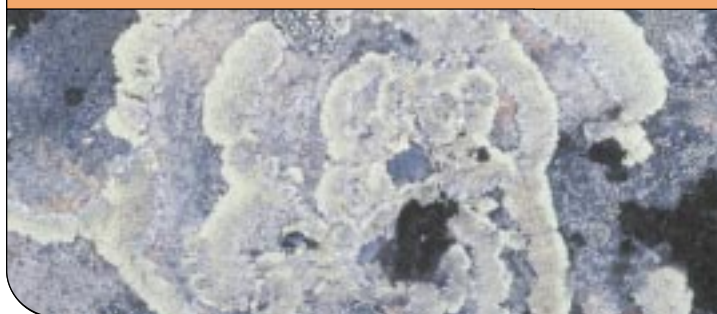
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Nunavut Tunngavik Incorporated

Nunavut Tunngavik Incorporated (NTI) is the Inuit corporation responsible for overseeing implementation of the NLCA. NTI's mandate includes safeguarding, administering and advancing the rights and benefits of the Inuit of Nunavut to promote their economic, social and cultural well-being through succeeding generations. The Lands and Resources Department of NTI is responsible for the implementation of Inuit responsibilities related to the management of Inuit Owned Lands (IOL), the environment, minerals, oil and gas, and marine areas.

There are two forms of mineral tenure that grant exclusive rights on Subsurface IOL administered by NTI. These are the Inuit Owned Lands Mineral Exploration Agreement (usually referred to as the "Exploration Agreement", or "EA") and the Inuit Owned Lands Mineral Production Lease (referred to as the "Production Lease"). The Exploration Agreement grants a company or individual the exclusive right to explore and prospect for minerals (excluding oil and gas, and Specified Substances such as construction materials and carving stone) on a portion of Subsurface IOL. This area, referred to as the Exploration Area, is similar in many ways to a mineral claim under the CMR.

The Production Lease grants the holder of an Exploration Agreement the right to produce minerals from a portion of the Exploration Area known as the Production Lease Area.

Since 1999, NTI has had in place a system of application that does not require staking when applying for an Exploration Agreement.

Rather, the application requires only a description of the Exploration Area based on latitude and longitude. The applicant must submit to NTI a completed application form, Application for an Inuit Owned Lands Mineral Exploration Agreement (available on request from NTI or from our Lands Department website http://www.polar.net.ca/ntilands/Exploration_App.htm). The completed application includes a description of the proposed Exploration Area defined by latitude and longitude of the boundaries as well as a map showing the proposed Exploration Area. Applications are received during designated months and are processed at the start of the subsequent month, at which time NTI will decide whether to accept an application and issue an Exploration Agreement. Applications are kept confidential until the close of the application period in which they are received, thus ensuring that all applicants are treated fairly. Further details on the application process are included in the application form.

It should be noted that although the process and documents described here normally apply, NTI, as a private organization, has complete discretion as to whether it will issue an Exploration Agreement (or other agreement), what the process will be for obtaining an agreement, and what the terms of the agreement will be. The terms may include, for example, NTI holding a direct interest in a project.

Under the standard terms, successful applicants, upon executing the new Exploration Agreement and submitting the first year's annual fees, will be granted the exclusive right



to explore for minerals on the Exploration Area. In order to gain access to the land, however, the applicant must obtain a surface right issued by the RIA.

NTI currently has 62 active Exploration Agreements with prospectors and exploration and mining companies. These cover more than 25 percent of the total Subsurface IOL. (In addition, grandfathered claims and leases comprise approximately 2 percent of all subsurface IOL.)

The significant increase in the percentage of IOL under Exploration Agreements (up from 11% the previous year) was due to the signing of an Exploration Agreement with Strongbow Resources for most of the open land in the West Kitikmeot, totalling approximately 604,700 hectares.

Holders of Exploration Agreements are required to submit annual exploration work reports to NTI that remain confidential for a period of up to three years

Many of the advanced exploration projects in Nunavut fall on Subsurface IOL. The following table summarizes the current active Exploration Agreements and their locations.

NTI Field Program

During the summer of 2003, NTI operated two field projects under the new Resource Revenue Fund (RRF). The fund derives its operating budget from fees collected for Exploration Agreements on IOL. The RRF consists of four programs:

1. **Inuit and University Geoscience Partnership Program**
2. **Inuit Carving Stone Development Program**
3. **Inuit Prospectors Assistance Program**
4. **Inuit Earth Sciences Student Assistance Program**

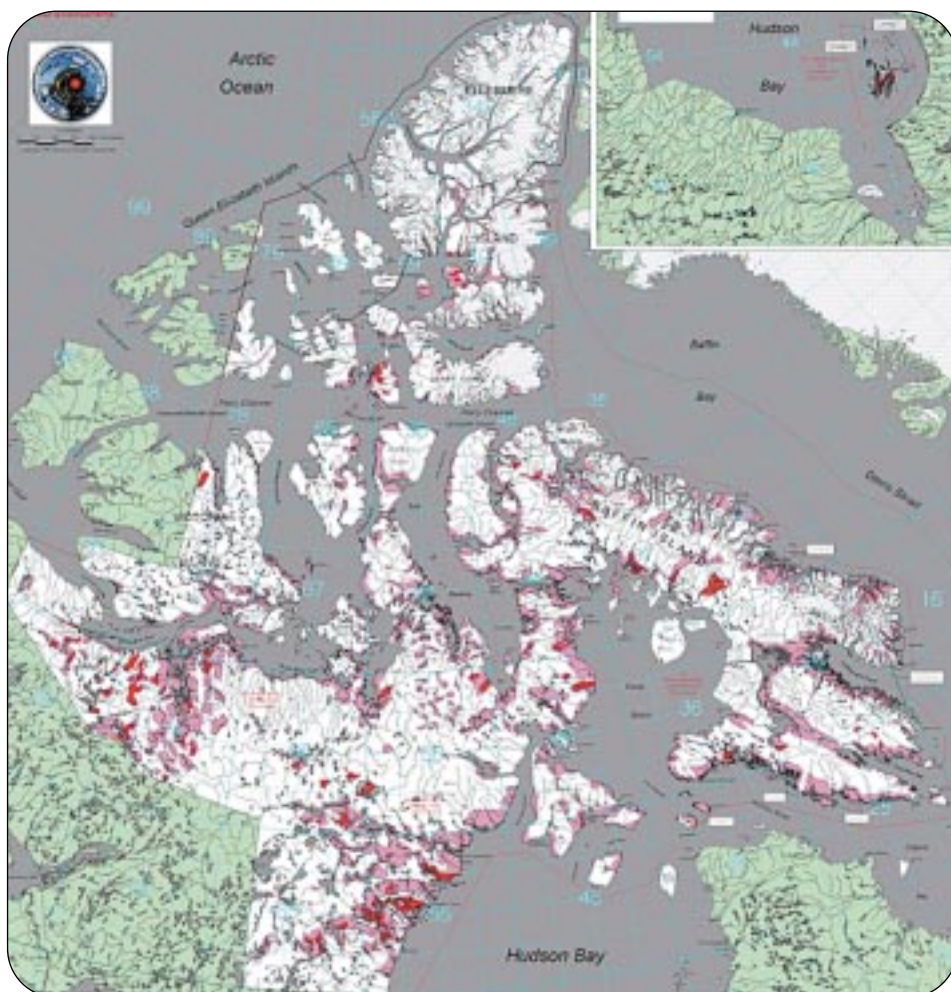
The RRF is designed to provide more direct benefits to Inuit through employment & education, geological mapping of IOL and identification & promotion of prospective

areas and to demonstrate NTI's commitment towards economic self-sufficiency. All of the field work was carried out in partnership with the University of Western Ontario (UWO).

The two field programs were conducted in the Whale Cove region during July, and the Sanikiluaq region during August. On both programs, local businesses in the communities were used to obtain goods and services, and local Inuit were hired as prospectors, geological assistants and boatmen. Expediting of camps was handled with local businesses or individuals.

The Whale Cove project evaluated known gold and base metal exploration targets in the area and investigated potentially favourable gold environments. In addition, approximately 40 till samples were collected as part of the

Distribution of Inuit Owned Lands, NTI.



Qikiqtani Region

Project/Deposit	Holder(s)	IOL Parcel(s)	Exploration Agreements
Piling Project ¹ Melville	BHP-Billiton Comaplex	BI-35 HB-15, HB-16	Qimmiq 1,2,4,5,6 (5 EAs) Melville 1-2 (2 EAs)

Kivalliq Region

Meliadine ²	Comaplex and Cumberland	RI-01, RI-12	Ant 1-4, Fay 1-4, W1, Tan 1-4, Felsic (14 EAs)
Meadowbank ³	Cumberland	BL-14	Meadowbank 1-3 (3 EAs)
Spi Lake	Comaplex	AR-16	Spi Lake
Square Lake	Comaplex	BL-21	Square Lake
Sedna	4579 Nunavut Ltd	RI-01	Sedna 1 - 5 (5 EAs)
Cache	Adam Vary	WC-08	Cache
SDS	Adam Vary	RE-27	SDS 1-3 (3 EAs)
Rand	Adam Vary	AR-28	Rand 1-3 (3 EAs)

Kitikmeot Region

Hope Bay ⁴	Miramar Mining	BB-57, BB-60	Akungan 1-3, Aimaokatuk, Tok 1-3 (7 EAs)
Contwoyto	Tahera	CO-08	Contwoyto 1-5, New Contwoyto 1-2 (7 EAs)
Hood River	Tahera	CO-20	Hood River
High Lake ⁵	Wolfden	CO-29	Hilk
Muskox North ⁷	Jerry Diakow, Gordon Addie (re: Trilogy)	CO-62	Muskox North
Arcadia Bay	Adam Vary	CO-31	Arcadia Bay
Rockinghorse ⁸	Kennecott	CO-44	Rockinghorse
Strongbow	Strongbow Resources	6047 km ² in the Kitikmeot	Strongbow

Note:

All projects referenced below are discussed in this report.

- Overall project involves Crown land and Subsurface IOL.
- The project involves land held under NTI Exploration Agreements as well as grandfathered claims and leases.
- The project involves land held under NTI Exploration Agreements and grandfathered leases.
- The Boston deposit is located on Surface IOL (at depth it crosses the boundary onto Subsurface IOL), while the Doris, Madrid, South Patch, Naartok and Suluk are on Subsurface IOL, distributed among grandfathered leases and NTI Exploration Agreements. Potential extension of the Boston deposit along strike to the north will also be on Subsurface IOL.
- The project involves Crown land and land held under NTI Exploration Agreements and grandfathered leases.
- The project involves Crown land, Surface IOL, and Subsurface IOL under NTI Exploration Agreements.
- The project involves Crown land, Surface IOL, and Subsurface IOL under NTI Exploration Agreements.
- Near the edge of the project referred to later in this report.

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www.ntilands.com

Kimberlite Indicator Mineral (KIM) sampling program. Potential soapstone environments were also examined. Personnel from Indian and Northern Affairs Canada (INAC) worked with the field crew and assisted in evaluation of gold occurrences. Till samples and rock assays were shipped to the Saskatchewan Research Council (SRC). Tills were processed for gold grains and KIMs; results were pending at the time this summary was prepared. The rock samples returned many high gold values. A thesis is being carried out at UWO on the plutonic and porphyry environments for gold mineralization. Follow-up work is planned for 2004.

The Sanikiluaq project was aimed at evaluating old copper occurrences in the Belcher Islands along with examination of existing soapstone occurrences and discovery of new ones. The Canada-Nunavut Geoscience Office (C-NGO) partnered with NTI on this project in order to map Paleoproterozoic stratigraphy of the region and determine the age relationships of copper-bearing lithologies. Theses are being done at UWO on the Kipalu iron formation and on soapstone occurrences.



Canada–Nunavut Geoscience Office

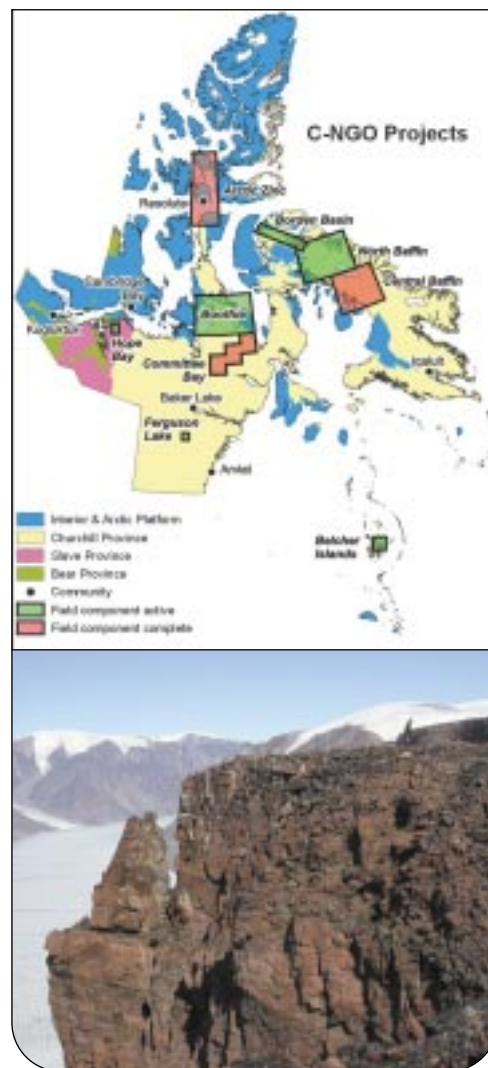
The Canada–Nunavut Geoscience Office (C–NGO) is a partnership between the Government of Nunavut, the Geological Survey of Canada (GSC), and Indian and Northern Affairs Canada (INAC). The C–NGO management board consists of representatives of each of the partners, as well as Nunavut Tunngavik Incorporated (NTI) and C–NGO.

During 2003, the C–NGO engaged in a number of thematic geoscience studies. Staff continued detailed field studies of Northern Baffin's Borden Basin, focusing on stratigraphic and structural constraints on zinc-lead-silver mineralization. Investigations in collaboration with Miramar Mining Corp. also continued, focusing this year on the Boston deposit of the Hope Bay Volcanic Belt. In collaboration with Starfield Resources, Ni–Cu–PGE mineralization around Ferguson Lake was examined. Lastly, a new thematic project developed in conjunction with NTI was initiated in the Belcher Islands, with the intent of updating our understanding of the stratigraphy and metallogeny of the Belcher Group. Reports on these research endeavors will be published in forthcoming issues of the GSC's Current Research and as GSC Open Files.

The Arctic Zinc Project, in collaboration with GSC–Calgary, completed the mapping and sampling component of its program, focused on the Cornwallis Zinc District in 2002. Geochemical and petrographic analyses on a regionally representative suite of sulphide minerals are nearly complete. New maps (1:50 000 scale) and regionally integrated structural interpretations of Little Cornwallis Island and part of western Cornwallis Island will be published in early 2004 (GSC Open File 1780). A summary and interpretation of the structural and stratigraphic controls on mineralization throughout the Cornwallis District, along with a preliminary synthesis of the district's structural history, was published in the GSC's Current Research (2004–B4). The project will culminate

with a synthesis volume to be published as a GSC Bulletin in late 2004.

The Committee Bay Integrated Geoscience Project, co-delivered with the GSC, focused on the geology of the Prince Albert group, located southwest of Committee Bay, in the north-central part of mainland Nunavut. The area contains Archean supracrustal rocks considered to have high mineral potential. Over the course of the 2000, 2001 and 2002 field seasons, bedrock and surficial materials mapping has been performed on NTS map sheets 56J, 56K, 56-O and 56P. An aeromagnetic survey flown across this area (Open File 4245–4250) covered 85,300-line km and was flown along northwest-southeast trending flight lines (perpendicular to strike) spaced at 400 m along a pre-calculated drape surface with a mean terrain clearance of 150 m. Bedrock geology maps at 1:100 000 scale have been published for NTS sheets 56K (Open File 4190), 56J (north) and 56-O (south) (Open File 3777); maps for NTS 56P will be published in 2004. Results of bedrock geochemistry and a compilation of assessment reports for the area are also available (Open File 4275). The Quaternary component of this project included surficial geology mapping and reconnaissance-scale till geochemistry, gold-grain counts and a kimberlite indicator mineral survey across NTS sheets 56K, 56J (north), 56-O (south) and 56P. Surficial geology maps (1:100 000 scale) have been published for NTS 56K (south and north; Open Files 4278 and 4279, respectively); maps of 56J (north) and 56-O (south) will be published in spring, 2004, and 56P will be published later in 2004. Complete results of the till geochemical and gold-grain count surveys are published (Open File 4493); results from the kimberlite indicator survey will be published in spring, 2004. Reports on technical aspects of this project were published in the February 2003 volume of the GSC's Current Research.





In collaboration with the GSC, the Central Baffin Project focused on bedrock and surficial geology mapping and interpretation of the Paleoproterozoic Foxe Fold Belt in central Baffin Island. Over three field seasons (2000-2002) the project covered NTS map sheets 37A, 37D, and the western halves of sheets 27B and 27C. Bedrock maps at 1:100 000 scale were released through the GSC publication system in 2002 (Open Files 3958, 3959, 3960,

rocks of the Mary River Group are thought to have a high potential for Au, Ni, Zn, and PGEs; the kimberlite potential of the area is also considered significant. The complex and poorly understood glacial history of the area means that an improved regional surficial geoscience knowledge-base is a necessary prerequisite to effective mineral exploration in the region. This project is designed to evaluate the economic potential of northeastern Baffin Island by



3961, 4199, 4200, 4201), along with a detailed map of an area prospective for Broken Hill type mineralization (Open File 4168) and a 1:250 000 scale summary bedrock map and digital database (Open File 4168). Two new 1:100 000 scale bedrock maps for the Clyde River and Blanchfield Lake areas were released in 2003 (Open Files 4432 and 4433 respectively). The Quaternary component of the Central Baffin Project produced 1:100 000 scale surficial geology maps that were released in 2002 (Open Files 4287, 4296, 1570, 1569, 1571, 1572), and 2003 (Open Files 4412, 4411, 4357, 4355, 4354, 1533). Reports on the various technical aspects of this project were published in the February 2003 volume of the GSC's Current Research.

At present, the C-NGO's North Baffin Quaternary project represents the only regional mapping program with active fieldwork in 2003. Within the study area (NTS map sheets 37E, 37F, 37G and 37H), Archean volcanic

providing an improved understanding of the glacial history in this extensively drift-covered area. The North Baffin Project's drift prospecting survey, surficial materials mapping and ice-movement-chronology have the potential to identify new sources of Au, Ni, Zn and Ni-PGEs associated with supracrustal rocks, as well as kimberlite indicator-mineral trails. Regional ice dynamics will be analysed, and regional geochemical background values and source-rock petrology documented. Geochemical (till and whole-rock) and heavy mineral surveys will add significantly to the general geoscience knowledge of this area.

North Baffin Project outputs will include the following: 1) contribution to digital northern geoscience data resources; 2) incorporation of remotely sensed data and contribution to new multi-thematic models (partnership with the GSC's Remote Predictive Mapping Project); 3) help to assess mineral potential within the study area and 4) promote increased community



participation in exploration activities and geoscience resource development, through outreach activities. Results of the 2003 sampling programs (bedrock and till geochemistry; till gold-grain counts) will be published in spring, 2004 as GSC Open Files; surficial geology maps will be released as GSC Open Files. Reports on the technical aspects of this project will be published in GSC's Current Research.

In collaboration with INAC and the GSC, the C-NGO is planning to initiate a new regional bedrock mapping program in 2004. This project will focus on evaluating the economic potential of, and upgrading the geoscience knowledge base for, the Boothia Mainland area, south of the community of Taloyoak and north of the Committee Bay Project (2000-2003). The core of the proposed study area contains crystalline rocks of Archean and possibly Paleoproterozoic age, which are presumably the continuation of comparable belts exposed in the Committee Bay area to the southeast. The only currently available bedrock maps for the region are at a small scale (1:500 000 and 1:250 000), and are considered inadequate for the facilitation of grass-roots mineral exploration. Moreover, appropriate complementary geoscience information is not presently available; the Boothia Mainland region remains a large data gap in our current understanding of the north-central Canadian Shield. The proposed 1:100 000 scale bedrock mapping project will complement recent bedrock mapping in the Committee Bay region and contribute to stimulating mineral exploration in the region by helping to focus the investigations of our clients and stakeholders.

The Boothia Mainland project will contribute to framework mapping and geoscience knowledge in Nunavut through the following digital, web-based and paper outputs: 1) six new 1:100 000 scale geological maps; 2) digital compilation of all available geophysical and remotely sensed datasets; 3) digital release of all subsidiary datasets, including those derived from surficial, structural, petrological and

geochronological studies; and 4) progress reports or presentations to be given at appropriate annual industry-governmental meetings. These outputs will directly address the immediate need for mineral exploration in Nunavut, and their timely release in digital format to northern communities and industrial and government clients will appropriately enhance future land use planning and mineral activities in the region.



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Nunavut Prospector's Program 2003



Twenty-six prospectors from across Nunavut received funding through the Nunavut Prospector's Program (NPP) in 2003. DSD initiated this very successful program in 2000 to help prospectors evaluate and collect rock samples in order to stake claims and actively contribute to mineral exploration in Nunavut. Thirteen prospectors are from the Kivalliq, six from the Kitikmeot, and seven from the Baffin region. Thirteen prospectors hold claims in Nunavut, and these include some significant gold, platinum, base metal, gemstone and kimberlite prospects.

Please note that if further information is required on any subject discussed below, please contact one of the GN's Resident Geologists. We will be pleased to forward you contact information for any prospectors on the NPP.

Kivalliq Prospectors

Prospector activity has been ongoing for several years in the Kivalliq region, which currently leads the territory in both number of active prospectors and number of claims staked. A total of 13 of the 26 prospectors currently receiving support under the NPP are from the Kivalliq, and seven hold claims within the Region.

Arviat Area

The community of Arviat leads the region in number of active prospectors. A total of eight of the 13 Kivalliq prospectors are based in Arviat. Claim holders include Mark Kinniksie, Peter Suwaksiork and Mark Eetak.

Mark Kinniksie holds claims in the Ranger Seal Lake area, located 120 km southwest of Arviat. The claims cover a wide area of gossanous and pyritic, fine-grained volcanic rocks that are cut by rusty quartz veins. Pyrite occurs both as fine-grained, disseminated patches and as

5-10mm cubes. Significantly anomalous gold (up to 1160 ppb Au) and copper results have been obtained from these properties.

Mark holds two other claims covering semi-massive pyrrhotite mineralization near the mouth of the Tha-Anne River. Situated approximately 75 km southwest of Arviat, 13 of 14 samples collected from these claims returned nickel values of 672 ppm, cobalt, 566 ppm and copper values of over 6800 ppm.

Peter Suwaksiork holds a claim 60 km north-northeast of Arviat covering weakly chloritized pillow basalts and iron formation, hosting strongly anomalous gold and copper mineralization.

Prospector Mark Eetak staked seven claims in 2001-2002 in the north Henik Lakes area. Vuggy pyrite occurs locally in the well-exposed carbonates and quartzites there. Assay results yield slightly anomalous Ni, Cu and As.





Rankin Inlet Area

Prospector William Gawor holds several claims in the Rankin Inlet area, which are underlain by volcanic rocks with subordinate quartz arenite, with considerable gossans. Samples taken from these properties are significantly anomalous in copper and nickel. Paul Pissuk, also from Rankin, staked claims to the north from which samples bearing large quantities of pyrite, chalcopyrite and pyrrhotite have been taken; assay results are pending.

with various concentrations of chalcopyrite and molybdenite. Analytical results from more than 100 rock samples have returned values of over 6,820 ppm Ni, 9,240 ppm Cu, 3,360 ppm Zn, more than 10,000 ppm As and 2,350 ppb Au, as well as 40.6 ppm Ag and significantly anomalous values for Mo. The main focus of Steve's work covers a mineralized area measuring 6 km by 3 km, a most impressive zone that displays compelling potential.

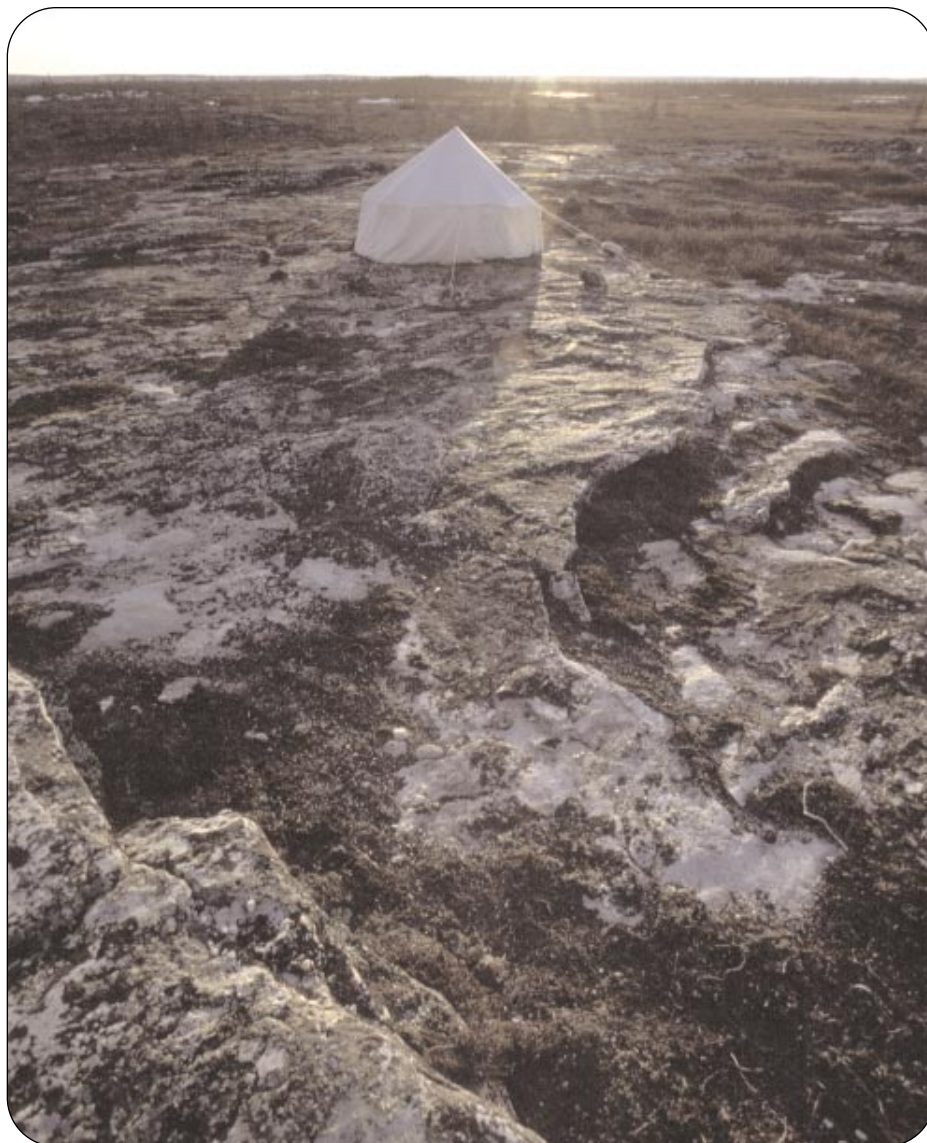
Baffin Prospectors

Igloolik prospector Harry Iyerak holds active claims in three areas: One of these, Nuvua, is located 75 km due south of Arctic Bay; the Kiggavik claims in central Baffin Island, is approximately 250 km southwest of Clyde River. Of the samples collected from these claims, most have abundant pyrrhotite and many are highly anomalous in zinc (over 1000 ppm Zn). Nickel, molybdenum and copper values of over 100 ppm have been recovered from this property as well. Finally, Harry holds claims covering most of Igloolik Island, strategically located between North Baffin and Melville Peninsula- both of which are currently subject to extensive diamond exploration.

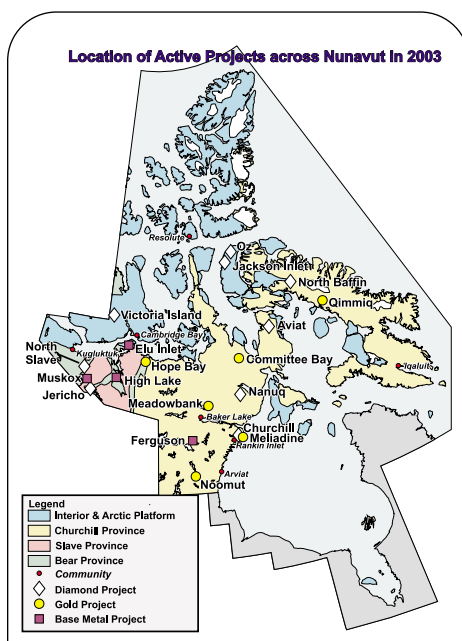
Three prospectors from South Baffin, Seemeega & Nowdluk Aqpiq and Chris Lloyd, recently optioned two sapphire-bearing claims to True North Gems of Vancouver. This represents two "firsts": the first prospectors supported by the NPP to option a claim, and the first non-diamond gemstone property to be optioned by a company in Nunavut.

Kitikmeot Prospectors

Steve Alookey of Taloyoak has been prospecting the Thom Bay area, 60 km northwest of Taloyoak, for over a decade. During this time he has reported six areas of massive sulphide showings, and from 2000 to 2002 he staked a total of 10 claims over these showings. Mineralization consists mainly of pyrrhotite



Summary of Mining and Exploration – 2003



On the mining front, the Lupin gold mine suspended operations in the summer, as a strong Canadian dollar impacted on revenues. It is not known whether owner Kinross Gold will re-open the mine, but the company has entered into agreements regarding its exploration projects in the Slave Province; Wolfden Resources has agreed to purchase the Ulu gold deposit, which is located south of the High Lake copper-zinc deposit. Miramar Mining now has an option to earn a 60% interest from Kinross in the George and Goose Lake gold project.

Meanwhile, mine reclamation continues at the Polaris and Nanisivik mine sites, where operations were ended in 2002. Wolfden has purchased much of the Nanisivik mine infrastructure from Breakwater Resources and will be dismantling it for transport west towards High Lake, once regulatory approvals have been given.

As expected, Cumberland Resources has initiated the environmental assessment process for the Meadowbank gold project,

north of Baker Lake. The Jericho diamond project and the Doris North gold project are undergoing separate environmental assessments led by the Nunavut Impact Review Board. A fourth environmental assessment, of the Bathurst Inlet Port and Road project, is also pending. The fact that three mines are now undergoing environmental assessment is very encouraging given the potential employment and revenues that could result.

Exploration expenditures are a significant part of the local economy as well, with around 20% remaining in Nunavut in the form of salaries, contracts, and purchases. Industry's investment in 2003 is currently projected to be approximately eighty-two million dollars, up from the seventy-five million invested in 2002 (NRCAN, www.nrcan.gc.ca/mms/efab/mmsd/exploration/byprov2002.htm). This figure is a new high for the territory, and is more than double the thirty-nine million spent in 1999. It also meant that Nunavut trailed only Ontario and Quebec for exploration investment in Canada.

As was the case in 2002, the bulk of the spending was split between a few large gold projects, such as Meadowbank and Hope Bay, and a number of diamond projects. Base metal exploration continues to account for a relatively small fraction of the expenditures. Once again there was essentially no investment in uranium or iron, though it has been suggested by some mining companies that the territory's large iron deposits may be ready for development.

Approximately twenty-two million acres of tenure — mineral claims, prospecting permits and exploration agreements — were acquired by industry in 2002, an area larger than New Brunswick. Not surprisingly, 2003's figures are lower, though still strong; as of November 2003, the projected total for the year was 4.5 million acres of claims, 9.0 million acres of prospecting permits, and 1.5 million acres in exploration agreements. In total, mineral tenure held in various forms in Nunavut totals about forty-three million acres — an area larger than



New Brunswick, Nova Scotia, and Prince Edward Island, but only about 8% of Nunavut.

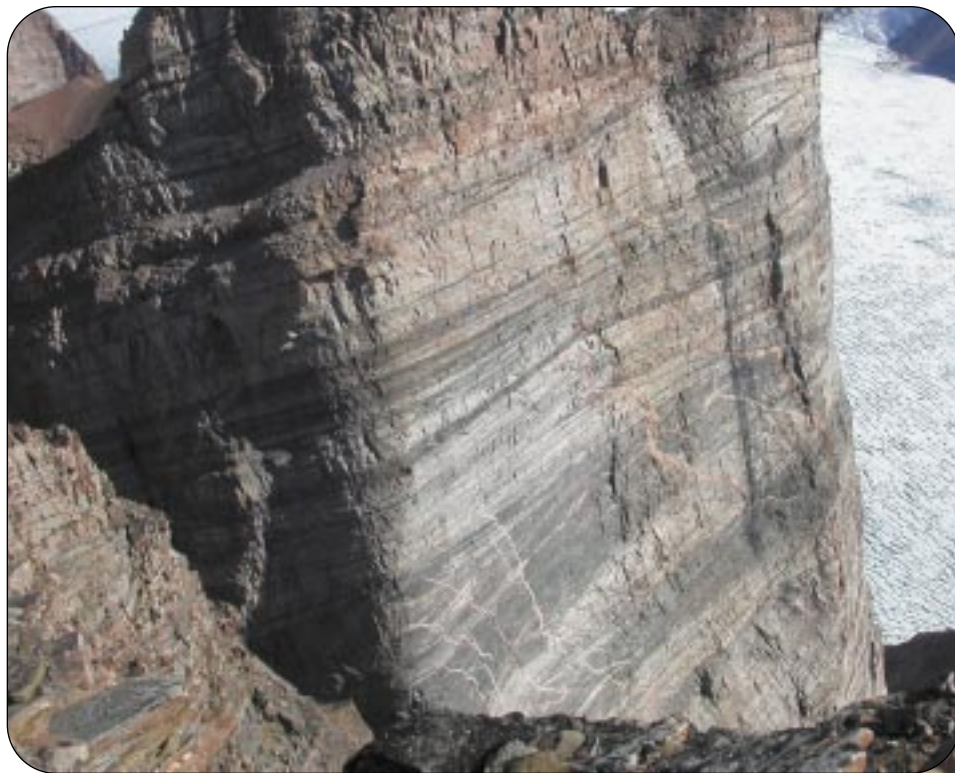
Drilling in 2003 was estimated at 123,000 m, with another 5,000 m of RC drilling. This compares with 88,000 m in 2002 and 102,000 m in 2001. Much of the drilling took place on a small number of advanced projects — the Hope Bay (40,000 m) and Meadowbank (19,000 m) gold deposits and the Ferguson Lake (21,000 m) and High Lake (15,000 m) base metal deposits.

Diamond exploration continues to generate the most excitement in Nunavut. Stornoway and Northern Empire's 2002 discovery west of Igloolik proved to be a kimberlite, but the partners limited the flow of information to the public until after they secured several million acres of prospecting permits in February 2003. BHP Billiton and Dunsmuir Ventures have also secured large land packages, near Repulse Bay and Ukkusiksalik National Park (or Wager Bay) respectively.

Further south, around Rankin Inlet, kimberlite discoveries on three properties created a stir. Shear Minerals, Stornoway Diamonds, and BHP Billiton made the majority of the discoveries, finding fifteen kimberlites on the Churchill Diamond Project. These partners and International Samuel Exploration found an additional pair of kimberlites on the nearby Churchill West property, while Cumberland and Comaplex found ten more on the Meliadine East property. Samples from the kimberlites have yet to return significant diamond counts, but several did contain a limited number of stones, and the mineral chemistry is said to be promising.

The diamond play in the Coronation Gulf area continues to generate new discoveries, as Ashton Mining of Canada found a new kimberlite on the Ric property. Further north, Diamonds North and its partners have recovered macro-diamonds from some of the recent discoveries made on Victoria Island.

Despite the spread of diamond exploration across the territory, gold bugs are holding their own. Miramar Mining encountered new



areas of gold mineralization during a deep drilling program at the Boston deposit in the Hope Bay Belt, while Committee Bay Resources cut significant mineralization at the Three Bluffs Zone in the Committee Bay Belt. On Baffin Island Commander Resources reported up to 6.87 ounces per ton gold in chip and grab samples at the Malrok showing.

Base metal exploration remains concentrated at a limited number of projects. Starfield Resources is continuing to develop its Ferguson Lake nickel-copper-platinum project. Anglo American Exploration has joined with Muskox Minerals in grassroots exploration at the Muskox ultramafic intrusion; just a short distance away, Coronation Minerals and Guyana Goldfields drill-tested the DOT 47 copper occurrence. Wolfden Resources enjoyed a fruitful campaign at High Lake, as separate gold and base metal discoveries were reported.

The following summary details the highlights of exploration activities across Nunavut in 2003.



Active Diamond Projects

DIAMONDS

Jericho

Tahera Corporation conducted diamond drilling and till sampling on their 100% owned Jericho project, located north of the Lupin gold mine. Tahera drilled a total of 690 m in order to test 9 kimberlite targets. A single, steeply dipping kimberlite dyke was intersected approximately 9 kms south of the Jericho kimberlite pipe. The dyke is believed to be between 0.6 and 1.0 m wide and has a strike length of at least 20 m. Five diamonds were recovered from 7.6 kg's of processed kimberlite. They also reported collecting approximately 450 till samples as part of their regional diamond exploration program.

Tahera provided an updated feasibility study for the proposed Jericho diamond mine. A total of 3.1 million carats are accounted for in the current 8 year mine plan, including open pit mining of 2 million tonnes of kimberlite (2.4 million carats) followed by underground mining of 615,000 tonnes (673,000 carats) of kimberlite.

Final public hearings relating to the projects Environmental Impact Statement is planned for early January 2004. Tahera is hoping to have all regulatory and permitting completed by 2004 and construction and commissioning of the diamond plant by 2005.

DIAMONDS

Victoria Island

At least 27 kimberlite occurrences have been discovered on Victoria Island since the original discoveries were made by De Beers in the mid 1990's. Of these, approximately 20 contain diamonds. The majority of exposed rocks on Victoria Island are Paleozoic platform sedimentary rocks that are unconformable on Proterozoic sedimentary and volcanic rocks of the Shaler Supergroup. Archean basement is believed to underlie the eastern part of the Island. These Archean rocks most likely represent the northern extension of the Slave Province. Diamonds North Resources Ltd currently operates several projects on the

Nunavut portion of Victoria Island, including: the Blue Ice project (joint venture with Teck-Cominco Limited); the Wellington and Stefansson projects (joint venture with Majescor Resources Inc); and their wholly-owned Hadley Bay project.

Kimberlites on the 450,000 acre Blue Ice property are hosted within the 20 km wide, northwest trending Galaxy Structure. Diamonds North planned a \$3 million program in 2003 that was designed to drill test the Galaxy Structure and collect large amounts of kimberlite for diamond analysis. An 11,360 line km airborne geophysical survey was also flown over the property. Approximately 1,850 m of drilling were completed and over 4 tonnes of kimberlite was collected from 11 known occurrences. Only partial results were available as of mid-November, 2003. A total of 78 diamonds (including 9 macrodiamonds) were recovered from 44.6 kg of the Vega kimberlite. Additionally, a 217.68 kg sample from the Snow Bunting dyke yielded a total of 88 diamonds including 18 macrodiamonds. The SLT4 kimberlite dyke was also discovered in 2003 and yielded 44 diamonds, including 10 macrodiamonds from a 79.81 kg sample.

Diamonds North is also planning to complete ground geophysics and diamond drilling on the Wellington (199,000 acres) and Stefansson (219,000 acres) projects. Ground geophysics on Wellington was designed to follow-up at least 12 anomalies originally defined during a 2002 airborne survey. Exploration on the Stefansson project consisted of regional till and stream geochemical surveys designed to evaluate known indicator mineral anomalies.

The 255,000 acre Hadley Bay property is located 20 kms north of the Galaxy Structure. Known kimberlites at Hadley Bay are associated with the >25 km long King Eider kimberlite trend. At least 10 kimberlites are known on the property. Diamonds North discovered a new kimberlite dyke in 2003 and also





identified magnetic anomalies consistent with kimberlite pipes.

Stornoway Diamond Corporation also initiated diamond exploration on Victoria Island in 2003. They collected regional till samples on their prospecting permits totalling 945,000 acres. Results were not released by mid-November, 2003.

DIAMONDS

Coronation Gulf Region

The Coronation Gulf region is located in northwestern Nunavut (southeast of Kugluktuk) and covers approximately 3 million acres of land between Coronation Gulf and Napatulik Lake. The discovery of diamondiferous kimberlites by Ashton Mining of Canada and Kennecott Canada Exploration Inc. in late 2001 prompted a staking rush that resulted in over two million acres of land being acquired by various companies and joint ventures. Subsequent exploration has resulted in at least 15 kimberlite discoveries in the region.

The Coronation Gulf area straddles the exposed boundary between the easterly Archean Slave Province and the westerly Proterozoic Bear Province. Archean rocks are varied and comprise intrusive complexes and supracrustal belts. Proterozoic rocks of the Coronation Supergroup are mainly siliciclastic and carbonate rocks of the Recluse and Epworth Groups. Southeast trending Mackenzie dykes (1.27 Ga) are widespread in the region.

During May of 2003, Northern Empire Minerals Ltd announced a merger with Stornoway Ventures Ltd to form Stornoway Diamond Corporation. The move resulted in partial consolidation of diamond properties in the Coronation Gulf. Stornoway is currently the largest land owner in the Coronation region with interests in a total of 1.3 million

acres. They are operator in 11 individual Coronation properties with various joint venture partners including, Navigator Exploration Corp (Jewel and Bear properties), International Samuel Exploration Corp, Dasher Energy and Caltech Ventures (Sceptre and Tiara properties), and International Samuel Exploration Corp, and Earth Star Diamonds Inc (Jubilee property). Stornoway also holds 100% interest in the Aqua, Diva, Marquis, Princess, Crown and Orb properties. In 2002, six of these properties were surveyed with fixed-wing airborne magnetic surveys and four were surveyed by heli-borne magnetic and electromagnetic methods. A total of 3,000 till samples were collected on all of the properties. In 2003, Stornoway spent nearly \$3 million in the Coronation Gulf region and completed ground-truthing of airborne geophysical anomalies and also collected 2,700 follow-up till samples.

Ashton Mining of Canada operates eight separate joint venture projects in the Coronation Gulf region, totalling approximately 776,000 acres. Ashton and Pure Gold Minerals Inc are partners on the Ric, Kim, Vic, Eokuk and James River properties. The Kim property is host to the Artemisia and Thrift kimberlites and the Ric property contains the Perseus and newly discovered Caltha kimberlites. Ashton and Stornoway Diamond Corporation are partners on the Kikerk property which hosts the Potentilla and Stellaria kimberlites. Finally, the BH and AW properties are partnered with Augusta Resources Corporation.

Ashton was active on all of these properties in 2003 and spent nearly \$2 million on till sampling (~1,500 samples), diamond drilling (~900 m) and ground geophysics. Drilling on the Ric property resulted in the discovery of the Caltha kimberlite. Caltha is located 14 kms southeast of the Perseus kimberlite and 24 kms northeast of the Anuri kimberlite and was discovered by drilling two holes in an



electromagnetic anomaly measuring 160 m by 75 m. No diamonds were recovered through caustic dissolution. Drilling of four other electromagnetic targets on the Kim and Kikerk properties failed to intercept kimberlite.

Rhonda Corporation and their joint venture partner Teck-Cominco Limited completed a 1,156 meter drill program (12 holes) on their 90,000 acre Inulik property in 2003. The Inulik property is located directly south of Ashton's Kim claims and directly east of Stornoway's Sceptre claims. Nine of the 12 holes intersected kimberlite. The most significant intersections were from holes IN-03-08 (24.4 meter intersection) and IN-03-09 (10.0 meter intersection). Seven kimberlite samples were submitted for microdiamond analysis, however no diamonds were recovered.

Rhonda and partner De Beers Canada Exploration announced additional microdiamond data from their Knife kimberlite, located on the Tree-1 claim (adjoining the Inulik property). A total of 567 stones were recovered from a total of 589.04 kg of kimberlite that was collected in 5 holes during 2001. A total of 11 stones with a bottom sieve size of 0.5 mm were recovered, including 5 stones with a bottom sieve size of 1.0 mm. In all, 1,072.7 kg of kimberlite has been analyzed from the Knife pipe, yielding 718 stones for a total carat weight of 0.66 cts.

Tahera Corporation also released an update on processing of a mini-bulk sample from the Anuri kimberlite, located on the northern margin of Napatulik Lake. The Anuri pipe occurs on the 328,391 acre Rockinghorse joint venture that involves Tahera and Kennecott Canada Exploration Inc. The pipe was discovered by Kennecott in 2001 and comprises two distinct lobes that coalesce at depth. The surface dimensions of the pipe measure 325 m by 575.4 m. In the spring of 2003, Kennecott drilled 4 holes into the kimberlite and recovered approximately 2.6 tonnes of material for processing. As of mid-November, 2003, some 1,172.83 kg had been processed yielding a total of 352 diamonds. A total of 18 diamonds larger than 1 mm were recovered from the sample, including two diamonds greater than 1.70 mm

DIAMONDS

Melville Peninsula (Aviat Project)

The Aviat project consists of several properties (Aviat North and South, Foxe, Tuktu, and Lyon) totalling approximately seven million acres, located on the Melville Peninsula. Aviat North covers the north half of the Melville Peninsula and Aviat South property lies 90 km south southwest of Hall Beach. The property was originally staked and permitted by Hunter Exploration Group, who then entered into an agreement with Northern Empire Minerals. Northern Empire Minerals and Stornoway Ventures Ltd merged to form Stornoway Diamond Corporation in May of 2003 and BHP entered into a joint venture agreement around that time.

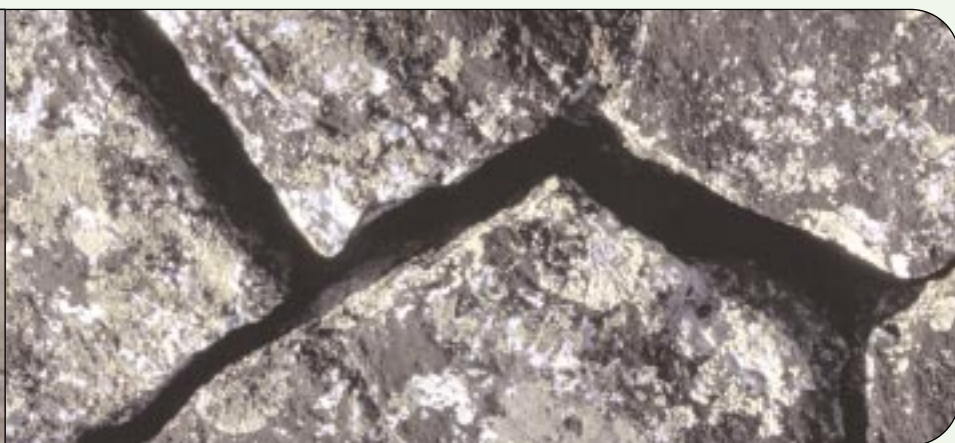
The area of the Aviat properties has been explored by Noranda Inc in the mid 1970's for uranium and in the mid 1980's by Borealis Exploration Ltd for gold, silver and iron. The properties are within the Churchill Structural province and are underlain by Ordovician to Cambrian limestones which are in turn underlain by sediments of the Penryhn group and Archean crystalline basement rocks.

This year Stornoway Diamond Corp increased the size of the Aviat Properties by permitting and staking of 5.5 million acres bringing the size of the property to approximately

seven million acres. The property was originally staked after finding the AV-1 kimberlite. The AV-1 kimberlite outcrops on a long narrow lake and is comprised of two phases. One phase is magnetic and diamondiferous and the other phase of the kimberlite body is non-magnetic. The diamond content of the second phase of kimberlite is yet to be determined. The entire AV-1 kimberlite has an overall dimension of 160 m long and 40 to 60 m wide. Two bulk samples taken from Aviat 1 have yielded 1614 diamonds from 1136 kg of kimberlite. The largest diamond recovered was greater than 2 mm in all dimensions.

A second outcropping kimberlite (AV-2) was found this field season. Four kms from AV-1 prospecting found a second kimberlite. Three holes were drilled into or near the AV-2 kimberlite. The first hole (inclined) encountered multiple intercepts of kimberlite. The second hole drilled, 75 m away, encountered two kimberlite intersections. No information was available for the third hole. Kimberlite material from the drill holes will be submitted for caustic fusion testing.

Work on the remainder of the property included approx 50,000 line kms of airborne magnetic survey, 1800 line kms of Digheem survey, 1,100 m of diamond drilling on AV-1 and AV-2, and 2600 till sample were collected as part of a regional sampling campaign and to follow up previous anomalies.



DIAMONDS

Melville Peninsula
and Baffin Island

Scarpa, Gem and Fury Properties

Navigator Exploration Corp in conjunction with NDT Ventures Ltd collected a total of 245 till and stream sediment samples from the three properties on the Melville Peninsula and Baffin Island. The three properties combine to total approximately 1,000,000 acres. Navigator also flew 14,700 line km of high resolution aeromagnetic data. Ground-truthing the initial results of the airborne geophysics has led to identification of a large sulphide-bearing iron formation that was sampled for assay. Results are pending.



DIAMONDS

Baffin Island

The De Beers Canada Exploration Inc. Baffin Island Project consists of 131 prospecting permits covering 8,043,661 acres around Steensby Inlet on northern Baffin Island. The property is underlain by Paleozoic carbonates which overlie Archean granitoids and gneisses.

De Beers Canada Exploration Inc. 2002 program consisted primarily of reconnaissance and follow up till sampling and surficial mapping. A 24 person camp was established and a total of 4915 till and stream sediment samples were collected on the property.

In 2003, De Beers Canada Exploration conducted ground geophysics on targets delineated through airborne geophysics and drilled 8 reverse circulation holes. Other activities included the collection of regional and infill till samples and prospecting for kimberlite float. A sample of kimberlite was collected in order to determine diamond content using caustic fusion.

DIAMONDS

Brodeur Peninsula
(Jackson Inlet)

Twin Mining Corporation's Jackson Inlet property covers 537 mining claims (5,107 sq km or 1,262,079 acres). Twin Mining increased its land position by 436 mining claims (2,283 sq km or 564,234 acres) on the Brodeur Peninsula of Baffin Island in 2003. Three outcrops of kimberlite were known to crop out on the claim block prior to Twin's acquisition of the claims. The area is underlain primarily by Cambrian and Ordovician sediments and Silurian limestones that, in turn, overlie Archean crust of the Rae craton.

Diamond exploration on northern Baffin Island dates back to the early seventies, when Diapros and Cominco uncovered kimberlites on both the Brodeur Peninsula and to the west on Somerset Island. A second phase of exploration began shortly after the diamond rush arose in the N.W.T., with Lumina Investment and Cyclone Capital conducting work in the region.

Twin Mining Corporation acquired the property from privately-held Helix Resources

in June of 2000. A prospecting program in May 2000 had collected a 94.5 kilogram sample from a previously known (but unspecified) kimberlite and was found to contain 40 microdiamonds and two macrodiamonds. Further prospecting and magnetic surveying began in the summer. Over a dozen new kimberlite occurrences were reported, four of which were trenched. Sample results included 0.196 carats from 887 kg of fresh and weathered kimberlite from Pipe 1. Pipe 2 yielded 1.049 carats from 560 kg of material, and 195 kg from Pipe 3 contained 0.156 carats.

Work on the Jackson Inlet property this year included the collection of 426 till and stream sediment samples from the newly staked property. Along with till sampling on newly acquired ground, Twin Mining Corporation performed a high sensitivity gradiometer magnetometer survey over the Cargo 2 kimberlite and discovered 8 anomalies in two corridors separated by 1.2 km. The corridors of anomalies are parallel to the Freightrain/Cargo 1 trend.

This season kimberlite fragments were found in a corridor (up to 50 m wide) between the Freightrain and Cargo 1 kimberlites and 700 m past Cargo 1. The fragments are weathered but show no sign of transport other than frost action. Three samples were collected totalling 50.5 kg of kimberlite float.

All three samples contained diamonds, 13 were recovered in total. Diamond indicator minerals were collected from the float. Analysis shows that the kimberlite originated within the diamond stability field with a geothermal gradient of 35 - 40 mW/m². Mantle ilmenites indicated that the diamonds will be highly preserved, in present.

DIAMONDS

Brodeur Peninsula

(Oz Series Claims and Prospecting Permits)

Kennecott's OZ claims surround Twin Mining's Jackson Inlet property on the Brodeur Peninsula. The area is underlain primarily by Cambrian and Ordovician sediments and Silurian limestones that overlie Archean rocks of the Rae craton.

Exploration interest in the area began in the 1970's, waned, rose again after the early 1990's diamond rush in the N.W.T., and subsequently waned again. VEC Consulting, as Lumina Resources, discovered the "Zulu" kimberlite in 1994. Twin Mining later renamed this discovery the Freightrain after acquiring the Freightrain and Slot claims from Fred Tartanic. They then began exploration work in March 2000. At that time Kennecott was in negotiations with VEC to acquire exploration results and prospecting permits held by VEC since

January 2000. Kennecott applied for, and received, an additional eight prospecting permits distributed throughout the peninsula. Later Kennecott increased its holding by staking fifty-seven claims in the summer of 2001. In January 2002 Kennecott again increased their land holdings on the Brodeur Peninsula by applying for and receiving a further 6 prospecting permits approximately 30 km northwest of their Oz claims. More recently, in the summer of 2002 Kennecott increased its land holding by staking more ground.

Kennecott Canada Exploration was active once again on their Brodeur Peninsula properties (Oz claims and prospecting permits). Kennecott Canada Exploration collected till and stream sediment samples, performed diamond drilling and conducted ground magnetic surveys. Kennecott also increased its land position on the Brodeur Peninsula during the last season. At the time of this writing there are no results to report.

DIAMONDS

Akimiski Island

The Akimiski Diamond Project lies within interpreted boundaries of the north central portion of the Superior Province. Paleozoic to Mesozoic sedimentary rocks of the Hudson Platform are flat lying, relatively undeformed and overlie much of the Superior craton. This regional geological and tectonic setting is similar to that of the nearby Attawapiskat kimberlite cluster discovered by De Beers. Historical records do not indicate any past exploration activities on Akimiski Island. Kimberlites of the Attawapiskat cluster cut through the Paleozoic cover rocks and have a distinct aeromagnetic signature in this geological. Condor Diamond Corp. entered into a joint venture agreement with 1458216 Ontario Ltd to conduct diamond exploration on Akimiski Island in the James Bay Low Lands. Condor Diamond Corp announced plans earlier this year that it would perform geophysical (airborne) and geochemical

surveys over the property and that it would also be staking additional ground to acquire additional prospective targets.

DIAMONDS

Replulse Bay Reconnaissance

BHP - Billiton Continued diamond exploration on their Repulse Bay property. The property consists of some 405 claims.

DIAMONDS

Rankin Inlet District

Churchill/Trustme Property

The Churchill Diamond project comprises ~1.7 million acres and spans the area ~15 km north of Rankin Inlet northwards to Chesterfield Inlet. The property is owned by Shear Minerals Ltd. (51%), Stornoway Diamond Corp. (35%), and BHP Billiton (14%).

The area is underlain by Archean metavolcanic rocks of the Rankin Inlet Group and surrounding Archean gneisses. The Paleoproterozoic Pyke Fault, thought to be an important control on gold emplacement at Meliadine, may also be favourable for kimberlite emplacement. However, Narrow kimberlite dykes (Peter and K-L) were intersected by drilling at Meliadine and yielded ages of ca. 192 Ma (U-Pb on perovskite) and ca. 214 Ma (Rb-Sr on phlogopite).

Diamond exploration remained limited in this area until Shear Minerals began to explore for diamonds in 2001. Shear began diamond exploration in the area in 2001 with the collection and kimberlite mineral analysis of 64 till samples. Encouraging results led to further till sampling and a detailed airborne geophysical survey (16 000 line-km) in 2002. Identification of 29 high priority geophysical targets for drilling and the discovery of kimberlite float in 2002 triggered further interest in the project. The project was



expanded to cover ~1 million acres with an exploration budget of \$2.5 million announced for 2003. Additional land acquisition in May of 2003 brought the size of the property to >1.5 million acres.

2003 results include additional aeromagnetic surveys (8000 line-km on Churchill and 14 000 line-km on Churchill West all at 150 m spacing), the collection of 1500 till samples, identification of 325 geophysical anomalies and ground geophysical surveys on 30 anomalies. Also significant is the impressive mineral chemistry, which includes a high proportion of G10 garnets. Drilling of priority targets commenced in June and the first kimberlite, called Qaumallak (Inuktitut for Lightning), was intersected shortly thereafter.

Although only 15 targets were initially selected for drilling in 2003, the excellent success rate motivated further drilling. Of the 26 anomalies drilled to date, 16 are kimberlites located on the Churchill property and two are kimberlites on Churchill West. Both magnetic highs and lows have proven to be kimberlites and all are considered to be pipe-like bodies at this point. Some drill-holes show two facies of kimberlite which commonly contains mantle xenoliths and visible indicator minerals such as pyrope, ilmenite, chromite, olivine and phlogopite. The Nanuq property is located within the Rae domain of the Western Churchill Province.

DIAMONDS

Rankin/Wager Bay area

Nanuq Property

The property is underlain predominantly by undifferentiated granitic and gneissic rocks of Archean age and minor granulite-facies rocks that are likely Paleoproterozoic in age. Supracrustal rocks generally form discontinuous lenses, though a greenstone belt occurs in the central part of the property, south of the Wager Bay shear zone and can be traced on aeromagnetic maps over 70 km. It comprises quartzites,



semipelites, metavolcanics, silicate-facies iron formation and metamorphosed ultramafic rocks (peridotites and/or komatiites) and may be correlative with Archean Prince Albert and Woodburn Lake Group rocks. Early Proterozoic, ca. 1.8 Ga calc-alkaline plutonic rocks of the Ford Lake batholith occur in the northernmost part of the property. They comprise coarse grained porphyritic to megacrystic monzogranites with an internal foliation defined by pink, tabular microcline crystals that are nearly concordant to the mineral foliation in the adjacent country rocks. A southeasterly trending late Proterozoic Mackenzie diabase dyke traverses the southwestern corner of the property. The Wager Bay shear zone cuts the northern part of the property in an east-west direction and contains structural elements that mimic its trend. The nearly vertical shear zone displays dextral shear sense indicators and is associated with numerous splays.

Dunsmuir's 2003 exploration program included \$750 000 expenditures on the 340 000 ha Nanuq property and resulted in the collection of 472 till samples for kimberlite indicator mineral (KIM) analysis to compliment sampling conducted by BHP Billiton and Dunsmuir over the past three years. KIM's recovered from the property include G9 and G10 pyrope garnets, diamond inclusion field eclogitic garnets, diamond inclusion field and kimberlitic chromites, chrome diopside and olivine. In addition, a 12 000 line-km HRAM

survey was flown at 150 line spacing over the property to identify geophysical targets for drilling.

Geomorphological studies have constrained the principal direction of glacial movement to be from the northwest toward the southeast, with only minor local variations due to proximity of an interpreted ice divide. Transport distances on the property are interpreted to be limited. Till sampling results and geophysical interpretations are pending and the company expects to have kimberlite targets drill-ready by early 2004.

Dunsmuir also acquired a further 253 285 ha property, Nanuq South and completed a \$300 000 exploration program to build upon the regional geochemical anomalies identified by BHP Billiton. Kimberlite indicator minerals recovered from Nanuq South include pyrope, chromite and diamond stability field eclogitic garnet and these are believed to have been derived from a source separate from the Nanuq source. 260 till samples were collected from Nanuq South for KIM analysis, covering a 5 km x 5 km grid with added detail near known KIM anomalies.

Both projects are part of a joint venture between Dunsmuir and BHP Billiton, with the former being the operator of both projects. The properties are strategically located between the Aviat Property on the Melville Peninsula and the Churchill Property near Rankin Inlet.

Active Gold Projects

GOLD

Hope Bay Project

Miramar Mining Corporation

Miramar Mining Corporation controls most of the Hope Bay greenstone belt (approximately 250,000 acres), large portions of which are Inuit-owned ground administered by Nunavut Tunngavik Incorporated. The Hope Bay belt is located in the northeast corner of the Archean Slave Province. The belt extends north-south for some 80 km and is seven to 15 km wide. Rock types are lower greenschist facies mafic volcanic rocks with felsic volcanic and volcanoclastic rocks and lesser ultramafic and metasedimentary rocks that are transected by a series of extensive, north-south trending altered shear zones.

Significant discoveries of gold mineralization have been made in the Hope Bay volcanic belt since the early 1990s, with important occurrences including the Boston, Doris and Madrid group of deposits. Prior to 2003, over 200,000 m of diamond drilling had been completed in the belt by Miramar and previous owners BHP-Billiton Ltd. A total measured and indicated resource of 1.6 million ounces at 15.7 g/t Au and an additional 2.7 million

ounces at 12.3 g/t Au is known in the belt (calculated prior to 2003 results).

Exploration during 2003 comprised 40,000 m of diamond drilling (87 holes), 4,300 m of reverse circulation drilling (248 holes), geological mapping, prospecting and ground magnetics, totalling over \$15 million. Approximately 30,000 m of diamond drilling was completed on the Madrid deposits, located in the northern part of the belt. Mineralization at Madrid is closely associated with a belt-scale structure locally known as the "deformation zone". A number of deposits, including Suluk, Perrin, Rand Spur and Naartok are known over at least an 8 km strike length. Drilling at Suluk expanded the mineralization to a strike length of over 500 m and to a depth of 500 m. Highlights include hole PMD227, which intersected 23.1 m (true width) at an average grade of 11.9 g/t Au, that included a higher grade intercept of 15.9 m grading 16.4 g/t Au.

Deep drilling at the Boston deposit located in the southern part of the belt extended the known gold zones to a depth of over 1,400 m and a strike of 750 m. Boston is the largest gold resource in the belt and comprises at least three sub-parallel zones (B2, B3, B4) characterized by quartz-carbonate veining and extensive iron-carbonate and sericite alteration. Hole S03-293 returned an exceptional intercept of

54.7 g/t Au over 9.0 m. Also, hole S03-295 returned 2.9 g/t over 10.9 m between 635-647 m.

Miramar has submitted a final Environmental Impact Statement to the Nunavut Impact Review Board (NIRB) for development of the proposed Doris North gold deposit. An updated resource calculation for the Doris North area is 458,200 tonnes grading 22.0 g/t Au, yielding a total indicated and inferred resource of 323,900 ounces of gold. The Doris deposits are located several kms from tide water and mineralization is associated with high-grade visible gold hosted in folded, fault-fill quartz vein systems. Preliminary scoping studies are also underway in the Doris area in efforts to expand known resources.

GOLD

Meadowbank

Cumberland Resources

The Meadowbank gold deposits occur within the Archean Woodburn Lake greenstone belt, ~75 km north of Baker Lake, and represent the third largest undeveloped gold resource in Canada. The stratigraphy generally consists of quartzite overlying komatiite, which in turn overlies intercalated felsic to intermediate volcanic rocks and iron formation. Regionally, four phases of deformation are recognized. Stratigraphy is folded into a northwest-trending, isoclinal, recumbent anticline sandwiched between two large granitoid intrusions.

Mineralization is hosted by intercalated iron formation and felsic to intermediate tuff, with minor quartzite and ultramafic schist. Sulphides (pyrrhotite and pyrite) and gold occur within a structural fabric associated with an early progressive isoclinal fold event. Alteration includes sericitization, sulphidation, silicification and carbonatization.

Six gold deposits have been identified on



the property: Goose Island, Third Portage, North Portage, Vault, Bay Zone and PDF. The Connector Zone, discovered in 2002, is a near-surface high-grade zone linking the Third and North Portage deposits. Highlights of the \$6.5 million 2002 program included expansion of the Vault deposit, completion of environmental baseline studies, and some encouraging results from the PDF zone.

The majority of 2003 work focused on infill and expansion drilling of the known deposits in order to increase confidence in the resources for feasibility studies. Phase 1 of the two-part 2003 program included 14 000 m of diamond drilling in 148 holes, as well as feasibility studies and commencement of the permitting process. Results of phase 1 drilling led to a resource increase from 7,775,000 t grading 5.79 g/t (measured and indicated) and 10,937,000 t grading 4.44 g/t (inferred) to 15 million tonnes grading 4.66 g/t (measured and indicated) and 8.9 million tonnes grading 4.2 g/t (inferred) for a total resource estimated at 3.5 M ounces Au (compared to a resource of 200,000 ounces in 1995). Phase 1 drilling focused on improved definition on the near-surface portions of the Goose Island and Vault deposits in preparation for final feasibility open pit designs.

Phase 2 activities included an additional 5000 m of drilling (both infill and exploration). Preliminary assessment of a ten-year open pit mining plan (January, 2002) indicated that Meadowbank could support a production rate of ~250,000 oz/yr at an approximate cash cost of US\$168/oz for over eight years. Feasibility studies are expected to wrap up by year-end. The company also conducted further exploration work (mapping and some drilling) along the Meadowbank Trend, north of the Vault deposit, to delineate targets for the 2004 season. Cumberland is planning an aggressive exploration program at Meadowbank for 2004. The Minister of INAC has referred the project

to NIRB for and Environmental Review, following NIRB's environmental screening recommendations.

GOLD
Meliadine
Comaplex Minerals Corp

WMC Resources Ltd. accepted an offer to merge its Canadian operating subsidiary, WMC International Ltd, with the Canadian junior mining company, Comaplex Minerals Corp., in July of 2003. Comaplex is now the operator of the project and its ownership in the Meliadine West gold project has increased from 22% to 78%. Cumberland Resources owns the other 22%. To date, over \$60 million has been spent on the project since 1995.

Results for 2003 program include 5476 m drilled in 19 holes in the Tiriganiaq zone and yielded up to 33.7 g/t Au over 10.8 m. This drilling was designed to move inferred resources to indicated status. Three additional regional targets were also assessed through geological mapping, ground geophysics, and sampling. These are the Nanuk/Peregrine shear zone (assays up to 256 g/t), the Raptor Zone (up to 125 g/t), and the SikSik East Zone (up to 47.25 g/t). The Meliadine West property hosts an inferred resource of 4.5 million ounces of gold in four separate zones. To date, over 125 km have been drilled on the Meliadine West property and Comaplex is now considering the resource in the context of a high-grade underground operation.

The Meliadine East property is 50-50 co-owned by Comaplex Minerals and Cumberland Resources. An inferred resource of ~300 000 ounces of gold was calculated for the Meliadine East property in 1996. Although no gold exploration has been conducted on Meliadine East in the past two

years, till samples were collected for kimberlite indicator mineral analysis over the northern half of the property in 2001. Positive results led to completion of a detailed (40 m line spacing) aeromagnetic survey in the fall of 2002. 2003 results include a 1650 m diamond drill program. Of the 16 holes drilled, 14 intersected kimberlite – ten of these represent separate kimberlite bodies. Only one of the ten kimberlites was diamondiferous. Results of additional petrographic and mineral indicator studies are pending.

GOLD
Committee Bay
Committee Bay Resources

The Committee Bay Greenstone Belt is one of the largest unexplored greenstone belts in North America. The northeast trending belt comprises discontinuous Archean supracrustal rocks of the Rae domain in the Western Churchill Province. Rock types include komatiitic to basaltic volcanic rocks, intermediate to felsic volcanic rocks and abundant banded iron formation. Regional mapping by the GSC in the 1960s has been recently upgraded by a three-year multidisciplinary mapping strategy coordinated by the C-NGO (2000-2002).

Committee Bay Resources (CBR) currently holds ~500,000 acres along the ~300 km long greenstone belt. CBR has entered into an agreement with Gold Fields Exploration whereupon the latter can earn a 55% interest in CBR's Committee Bay property by spending \$7.5 million over 4 years, while CBR remains the operator.

Results of 2003 exploration include 14 000 line-km of 200 m-spaced geophysics, 85 300 line-km of 400-m spaced geophysics, 1477 m of drilling on three targets (14 holes), as well as geological mapping and the collection

of 500 grab samples to delineate new gold targets. In addition, till sampling for kimberlite indicator mineral analysis was also conducted and CBR has retained the right to explore for and exploit any diamond deposits on the property, subject to a 1% royalty payable to Gold Fields upon the sale of any diamonds.

Drilling in 2003 identified a new, high-grade gold discovery that is open along strike and at depth. Encouraging drill results were yielded at the Three Bluffs, Inuk and Koffy occurrences. At Three Bluffs, gold occurs in intercalated iron formation, mafic volcanic rocks and sedimentary rocks and visible gold is identified where quartz veining is most intense. Mineralization there is spatially associated with the Walker Lake Shear Zone. Gold mineralization is delineated by drilling over 700 m along strike, to a depth of 50 m, and remains open. Gold values of up to 27.41 g/t over 9.44 m and 61.60 g/t over 4.84 m are reported for Three Bluffs. CBR also reports that low-grade (~3 g/t Au) halos of ~15-20 m in thickness are associated with many of the high-grade zones. CBR intends to continue aggressive exploration in 2004.

GOLD

Oro Claims

Navigator Exploration Corporation

The Oro Claims cover 10,183 acres at the north end of the Hope Bay greenstone belt, just north of Miramar's Doris deposit. The geology of the Oro claims consists mainly of mafic volcanic rocks intruded by extensive Proterozoic gabbro sills and dykes. Numerous historical gold showings are known on the claims, including the Wombat and Ida Point occurrences. The past-producing Robert's Bay Mine is located on the claims and produced native silver during a short life span in the 1970's.

Navigator Exploration Corp has been active in the area since 1997 and completed 1204 m of diamond drilling in 10 holes during 2003. They also completed geological mapping, prospecting and ground follow-up of

geophysical targets. Four of the drill holes tested the H4 vein that returned an intersection of 1.99 g/t Au over 0.35 m during the 2002 drilling program. The H4 vein is 3-5 m wide quartz-carbonate vein with abundant sericite and minor pyrite. Previous surface grab samples at H4 assayed up to 19.6 g/t Au. The six remaining 2003 drill holes tested the C5 showing (up to 7.5 g/t Au from surface grab samples), Wolf Lake (up to 16.2 g/t Au from surface grab samples) and a single hole was designed to test the potential for Doris-style mineralization in the southern part of the property. Drill results were not available as of mid-November, 2003.

GOLD

Qimmiq Project Central Baffin

Commander Resources Ltd.

In the spring of 2003 Major General Resources Ltd restructured and renamed itself to become Commander Resources Ltd. In June of this year Commander Resources entered into an option agreement with BHP Billiton Diamonds Inc to explore for gold on 50,000 hectares of Nunavut Tunngavik Inc. leases and 16 exploration permits covering 400,000 hectares of Crown land.

The area is underlain by the lower Proterozoic Piling Group supracrustal assemblage that is part of the Foxe Fold Belt. The southern margin of the Piling Group comprises a diverse lower package of siliciclastics, volcanic flows and volcanoclastics and an upper succession of greywacke-turbidites. The area is considered prospective for Broken Hill-type, VMS and mesothermal gold deposits.

During 2003, Commander Resources collected 525 rock samples. In November of 2003 Commander Resources announced that it had identified eight gold zones over 140 kms of east-west trending iron formation. The largest of these zones is the Malrok zone, which has a strike-length of 800 m and gold values of up to 239 g/t. The gold appears to

be contained in amphibolite facies iron formation and in quartz-filled tension gashes at the base of the iron formation. To date the gold values have been derived from the upper of the two iron formation horizons. Plans are being drawn up for drilling the Malrok and Ridge Lake zones next field season along with prospecting and geological mapping.

GOLD

Noomut River

Comaplex

In March 2002, Placer Dome (CLA) Limited signed an agreement with Comaplex whereby Placer has an option to earn up to a 75% working interest in the Noomut property by spending \$8 million over a 5 year period. During the 2002 field season, Placer funded a \$1.1 million exploration program on the Noomut property. The program, executed by Comaplex under a management contract with Placer, consisted of surface mapping and geochemistry, approximately 60 line-km of IP surveying, and follow-up diamond drilling in the fall. A total of 2250 m in 14 holes were drilled in the Esker Zone and on targets in the Yandle Area. Drill results of 13.1 g/t Au over 2.5 m were recovered in a previously untested area on the property. In 2003, \$750,000 of new exploration work was completed by Comaplex under the agreement with Placer Dome. The program included ground geophysics (IP, magnetics), diamond drilling (12 holes totalling 1760 m) and the collection of 400 soil samples. Results are pending.



GOLD

Mac and Cache Properties

Full Metal Properties

The Mac and Cache properties are two early-stage Archean lode-gold prospects within a 200km long granite-greenstone belt. Located about 60 km from tidewater, these gold occurrences suggest potential for a new, under-explored greenstone-gold belt. Additionally, the presence of bi-modal volcanic rocks and base metal showings within the belt suggest potential for VMS-style mineralization.

At Cache, mineralization occurs as stacked shear zones, typified by en-echelon quartz veins with sulphide-selvages within carbonate altered intermediate volcanics. The host lithologies are typically brecciated, occurring proximal to a quartz-feldspar porphyry. Several high-grade intercepts, including 31.2 g/t Au over 48.2 m (uncut), and 58.6 g/t Au over 4.0 m with coarse visible gold occur within a steep, south-plunging shoot within the shear zones.

The Mac prospect is located about 15 km east of Cache, on a 1,000 m by 1,000 m island within a shallow lake. Mineralization occurs as irregular quartz veins within a shear zone cross-cutting a gabbro unit. Previous drilling (12 core holes) was limited to the island, and several holes encountered high-grade values up to 25.0 g/t Au over 1.5 m and 9.6 g/t over 5.4 m. The mineralization strikes to the northeast, under Kaminak Lake. Full Metal Minerals believes that the best potential occurs underneath the lake. At analogous deposits in the Canadian Shield, the strongest shear zones typically occur underneath lakes, since pervasive shearing and alteration causes host rocks to be less competent and more susceptible to erosion and glacial scouring.

The Cache prospect was tested by previous operators with 26 core holes, which discovered an inferred resource (un-audited) of 489,000 tonnes grading 9.3 g/t Au, for approximately 150,000 oz.



The primary objectives of the 2003 work program was to characterize the geological setting of Mac and Cache, with the objective of defining additional drill targets to expand the known mineralization. Additionally, minor prospecting was performed to identify new gold occurrences. Results include structural mapping and the collection of 55 assay samples (results pending) from the two areas.

Central Vein, and 139,524 tonnes averaging 8.6 g/t in the Fred Vein have been reported in historic literature.

The primary objectives of the 2003 work program was to survey gold-bearing veins, and historic drill holes to establish survey control to integrate all previous work into a single database. Additionally, confirmation channel sampling was performed to compare with historic assay results. Metallic screen analysis resulted in an approximate 20% upgrade in gold values at Arcadia. Finally, structural mapping and lithogeochemical sampling was performed to characterize the geological setting at Arcadia.

GOLD

Arcadia Bay

Full Metal Minerals Ltd

Full Metal Minerals Ltd is 100% owner of the Arcadia Bay project which covers 3,160 acres and is located approximately 130 kms northwest of the community of Bathurst Inlet. Arcadia has been explored by several small companies and prospectors since the 1930s, targeting multiple high-grade quartz veins and shear zones located within greenstone and tonalite. Supracrustal rocks are part of the Archean Anilik greenstone belt.

Over 20 individual gold-bearing veins and shears have been identified to-date on the property, with at least 5 g/t Au values returned. Unaudited, historic inferred resources of 640,650 tonnes averaging 7.2 g/t in the North

GOLD

Maze Lake

Placer Dome

Placer Dome is conducting gold exploration in the Maze Lake area, located ~45 km west of Whale Cove. The property consists of 40 000 hectares and is located on Inuit Owned Land. This is the first season of exploration and includes a field budget of \$400,000. A six man crew will perform reconnaissance exploration, including airborne geophysics, ground studies and till sampling.

Active Base Metal Projects

ACTIVE BASE METAL

High Lake

Wolfden Resources Inc.

Significant new discoveries were made during 2003 at Wolfden Resources Inc.'s High Lake Cu-Au-Ag-Zn property. The High Lake property is underlain by north-trending Archean basaltic to rhyolitic flows and fragmented volcanic rocks in the northern part of the High Lake greenstone belt. Less voluminous argillite and greywacke form the easternmost portion of the property. Late Archean plutonic rocks intrude the supracrustal rocks in the western part of the property and Proterozoic diabase dykes intrude all units. Wolfden has a strategic arrangement with Teck-Cominco Limited, whereby Teck-Cominco provides technical and financial support to the project in exchange

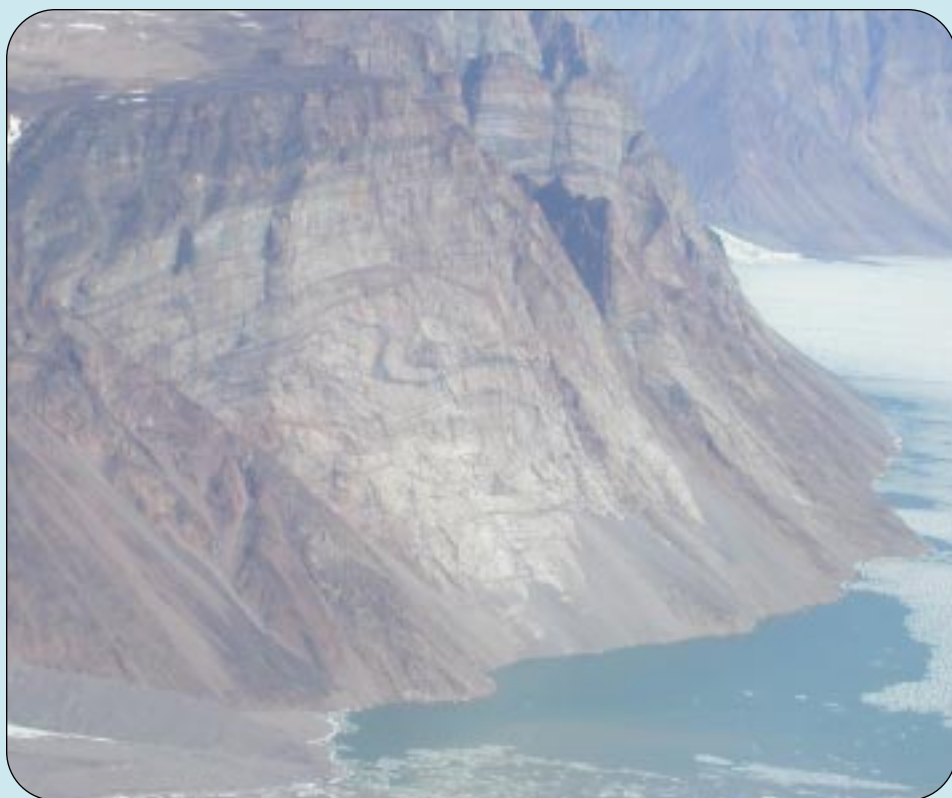
for first right of refusal on the property.

Numerous known gossans host copper-zinc-gold-silver mineralization, including the A-B and D zones. The former consists of stringers and massive lenses of chalcopryrite, pyrite, pyrrhotite, sphalerite, and magnetite, while the latter consists primarily of sphalerite, pyrite, and minor chalcopryrite.

Drilling during 2003 resulted in the discovery of the overburden-covered West Zone, located several km west of previously known mineralization. The zone has a strike length of at least 400 m and has been tested to a depth of 425 m. The style of mineralization is similar to known deposits and consists of massive sulphides hosted at significant stratigraphic breaks. Drill results thus far released include an interval of 68.5 m grading 3.96% Cu, 3.73% Zn, 142.3 g/t Ag and 3.4 g/t Au. This intersection includes a narrow and higher-grade interval of 8.85 m at

5.49% Cu, 3.09% Zn, 190 g/t Ag and 5.1 g/t Au. Drilling also resulted in the discovery of a new gold-rich zone located approximately 200 m from the known A/B and D zones. Mineralization is comprised of strong quartz flooding accompanied by disseminated pyrite, sphalerite, chalcopryrite and visible gold. The discovery hole returned 5.0 m grading 11.9 g/t Au and 66.7 g/t Ag that included a higher-grade interval of 3.0 m grading 17.8 g/t Au.

Late in 2003, Wolfden also announced they have agreed to terms with Kinross Gold Corporation to acquire 100% interest in the Ulu gold deposit, located approximately 50 kms south of High Lake. Ulu was discovered in the late 1980's and has a drill indicated resource of 1.5 Mt grading 12.78 g/t Au. Terms of the agreement were not released and approval is subject to a due diligence review as well as regulatory and third party review.



ACTIVE BASE METAL

Ferguson Lake

Starfield Resources

The 57 000 acre Ferguson Lake Project is wholly owned by Starfield Resources. The company expanded its interest in the property through negotiations with Wyn Developments whereby the former can earn a 50% interest the latter's land adjacent to the Ferguson Lake claims.

The Ferguson Lake deposit is a Ni-Cu-PGE deposit hosted by medium to weakly foliated tholeiitic gabbro-hornblende layered intrusions. The deposits are considered to be magmatic in origin, forming as immiscible sulphide segregations during emplacement. These sills or laccoliths have been emplaced along a pre-existing east-west trending structure interpreted as a regional suture based on 3D magnetic inversion evidence. Adjacent

amphibolite-hornblende-biotite gneiss may represent a large-scale mafic-ultramafic intrusion, and surrounding supracrustal rocks and tonalite gneiss are considered to be older (NeoArchean) than the less deformed layered sills. The gabbro hosting the Cu-Ni-PGE massive sulphides is exposed 1.8 km along strike on the West Zone and is covered by deformed tonalite farther west. Three dimensional inversion magnetic mapping indicates that the Ferguson Lake gabbro extends for at least 16.6 km to the west, and is shallowly buried and well-rooted to depths of at least 800 m.

Massive sulphides of the West Zone have been drill-intercepted over 2.8 km at depths coincident with the interpreted continuous EM conductor. The sulphides include pyrrhotite, chalcopyrite, pentlandite-violarite, pyrite and magnetite. PGMs associated with the massive sulphides include kotulskite, teuropalladinite, moncheite and sperrylite. Massive sulphides are best developed in the hanging wall portion of the north-dipping gabbro in the West Zone and textures there are interpreted to indicate remobilization of the sulphide.

Farther west, the relatively newly discovered 119 Zone is characterized by increased Ni-Cu-PGE grades in two to three massive sulphide units that dip 20 degrees to the north over a drilled strike distance of 400 m. Another relatively new discovery is the low sulphide gabbro containing PGE mineralization (LS-PGE) which occurs in the footwall to the massive sulphides. The LS-PGE gabbro is characterized by dispersed biotite alteration and fine-grained disseminated pyrite. Some intercepts contain Pt+Pd grading up to over 1 oz/tonne. The LS-PGE reacts well to crushing and Dense Media Separation with high-grade PGE's yielded from the sink concentrate and floatation cell recovery products. The widest zone (19 m wide with a grade of 3.65 g/t Pt+Pd) is found to track the massive sulphide unit some 30-50 m below its base and has

been traced for 160 m along strike in the West Zone potential "pit area".

The Ferguson Lake gabbros contain both extensive PGE-endowed massive sulphides (2.8 million oz PGM to date) and PGE-rich low sulphide mineralization. The poly-metallic and precious metal potential of the Ferguson Lake deposits have expanded as exploration continues.

ACTIVE BASE METAL

Muskox project

Muskox Minerals Corporation

Since the mid-1990's, Muskox Minerals Corp has been exploring an extensive land package (Crown and IOL parcels) that covers the majority of the exposed Muskox Intrusion. The 1.27 Ga Muskox Intrusion is a classic example of a layered mafic/ultramafic complex. The intrusion has a funnel-like shape that is up to 11 km wide and is exposed for 125 km in a north-south direction. Geophysical data suggests the intrusion continues for another 250 km under cover rocks. The intrusion consists of four main units; the Feeder, or Keel, Dyke, the Marginal Zone, the Layered Series, and the Roof (or Upper Border) Zone. Several other companies have explored the Muskox for its Ni-Cu-PGE potential since the 1950's including Inco, Equinox, Platinova and Trilogy Metals Inc.

During 2003, Muskox and their partner Anglo American Exploration Ltd conducted an airborne spectrum geophysical survey that identified 21 conductive targets that were followed-up by later ground surveys. A subsequent drill program of approximately 1,500 m began in mid-August in order to drill test some of these conductors. Results from the first seven holes were available by mid-November. Anomalous metals were encountered

in two holes: MX03-01 and MX03-02. Of note are results from MX03-01 which included a 0.61 meter interval grading 1.22% Ni, 0.76% Cu, 0.03% Co, 340 ppb Pt and 1150 ppb Pd. These results are from footwall paragneiss below the basal contact of the intrusion and are associated with low total sulphide content (<6% Sulphur).

ACTIVE BASE METAL

Chesterfield Inlet

Falconbridge Ltd.

The property is located on the northern part of the Snowbird Tectonic Zone (STZ). This zone is considered to be a major crustal break in the Canadian Shield, and the Chesterfield Inlet area is interpreted to represent an Early Proterozoic rift/extensional terrain associated with a major magmatic event. Evidence of this is the presence of several major Proterozoic mafic intrusive bodies, including the Kramanituau, Uvauk, and Daly Bay complexes, as well as a number of large gabbroic bodies occurring in the Suluk area (near Parker Lake).

Much of the area has seen little or no previous nickel exploration. Prior to Falconbridge's work, three main nickel showings were recorded in the project area: the MK showing, with the best grab sample returning 2.28% Ni; the Bowell Island Showing, with the best grab sample returning 1.76% Ni; and the Suluk Prospect south of the Falconbridge Prospecting Permits with the best assay returning 3.63% Ni.

Reconnaissance nickel exploration conducted by Falconbridge in the Chesterfield Inlet area in 2002 and 2003 includes hyperspectral analysis, reconnaissance mapping, airborne magnetic and EM surveys, and the collection of over 800 samples. Falconbridge is encouraged by results to date.

ACTIVE BASE METAL

West Kitimeot/NTI
joint venture

Strongbow Resources Inc.

Strongbow Resources Inc has signed a memorandum of understanding with Nunavut Tunngavik Inc. (NTI) that gives Strongbow exclusive rights to explore for and mine minerals on some 605,000 hectares of Inuit Owned Land. A total of 28 individual land parcels in the West Kitikmeot region are subject to the agreement. The geology of the parcels is very diverse. Some parcels cover portions of greenstone belts such as the High Lake, Hackett River and Hope Bay belts whereas other parcels cover Proterozoic rocks of the Wopmay Orogen. Target commodities are diamonds, gold and base metals.

To date, Strongbow has spent approximately \$1 million on the project. Work completed in 2003 included a 22,000 line km airborne magnetic survey as well as 1:10,000 scale mapping over parcels CO-69 and CO-20. Nine previously known showings were ground-truthed and approximately 250 till samples were collected. As part of the agreement, Strongbow also completed a data compilation of previous exploration and geoscience information on all 28 parcels.

ACTIVE BASE METAL

TK claims

Coronation Minerals Inc.

Coronation Minerals Inc and their partner Guyana Goldfields Inc have been exploring the copper potential of the 112,500 acre TK claims, located in the Dismal Lakes area, 75 kms southwest of Kugluktuk. The local geology is underlain by Proterozoic basaltic and lesser clastic sedimentary rocks of the 2-5 km thick Coppermine River Group. These strata are thought to be the extrusive

equivalent of the 1.27 Ga Muskox Intrusion.

Exploration in the 1960's resulted in the discovery of a number of Cu showings in the area. They are typically associated with native copper and chalcocite and bornite mineralization occurring as fracture fillings in flow top brecciated basalt. Coronation Minerals recently completed a 7,186 diamond drill program (7 holes) designed to extend the previously known "Dot 47" occurrence as well as test a nearby 10 milligal gravity anomaly. Results from two holes in the Dot 47 area have thus far been released. Hole 2003-47-1 intersected hematitic and brecciated basalt over a 185 foot interval and graded 1.48% Cu over that length. Additionally, hole 2003-47-2 intersected 238.75 feet grading 1.63% Cu. Additional drill results are pending.

ACTIVE BASE METAL

Elu Inlet

Sherwood Mining Corporation

Sherwood Mining Corporation owns 100% of the Elu property which consists of 110,000 acres located within the Elu Inlet greenstone belt. The belt consists of felsic and mafic volcanic rocks with subordinate sedimentary rocks. A mafic plutonic complex separates the Elu and Hope Bay belts but it is thought that the two belts may be petrogenetically related.

Recent geologic work by Sherwood has identified an 8 km long trend of stratigraphy that is considered favourable for volcanogenic Cu-Zn mineralization. Significant drill results along this trend from 2002 include, 1.6% Zn,

0.14% Pb, 0.09% Cu over 1.8 m (hole 02elu5) and 1.4% Zn, 0.05% Pb and 1.3% Cu over 0.4 m (hole 02elu15). In 2003, Sherwood completed a ground-based gravity survey over selected parts of the trend; however no favourable anomalies were identified.

ACTIVE BASE METAL

Mary River
Iron Deposits

New Baffinland Iron Mines Ltd

Glimmer Resources Inc and Baffinland Iron Mines Inc have combined to form New Baffinland Iron Mines Ltd. The new company will conduct further exploration on the Mary River Iron deposits on north central Baffin Island. If results warrant, the company will develop the four high-grade iron deposits on the property.

In 1962 the Mary River Iron deposits were discovered and staked for British Ungava Exploration Ltd. The claims were transferred to Baffinland Iron Mines Ltd. and in 1963 a road was constructed from the deposit north to Milne Inlet for the transportation of supplies in and samples out of the project area. Exploration and resource calculations continued to 1973 at which time it was decided that the economics of the deposit did not warrant full scale mining of the deposit. The deposit was only mined for test purposes. The resource for the four deposits that constitute the Baffinland Iron deposit sits at 127,000,000 tons of direct shipping ore with a grade of 69% Fe.



Active Gemstone Projects

ACTIVE GEMSTONE

Kimmirut Sapphire

True North Gems Inc.

In November of 2003 True North Gems Inc optioned two properties (collectively 2482 acres) from three prospectors (two from Kimmirut; one from Iqaluit). The sapphire occurrence was found and staked in 2002 by Nowdluk Aqpiq, Seemeega Aqpiq and Chris Lloyd. The two prospectors have dug two test

pits and have prospected the remainder of the property. A small amount of gem quality sapphire has been recovered this season and to date 3 stones have been faceted. The sapphires have been described as having an "exceptional blue colour" and "naturally deep, pure blue with purple overtones and as such represents a rare type of occurrence". Work in the future will start with the collection of a bulk sample of sapphire crystals in order to determine the grade of the deposit and then the extent of the mineralization will be determined.



Inactive Projects/Agreements/Regulatory Items

Miramar Mining Corporation has entered into a letter of agreement with Kinross Gold Corporation whereby Miramar has the option to earn a 60% interest in the large George and Goose Lake projects for expenditures of \$25 million. Goose Lake has a total resource of 3.897 million tonnes at 12.51 g/t, or 1.567 million ounces. The total indicated and inferred resources for the two properties stands at 7.806 million tonnes grading 11.25 g/t for 2.8 million ounces.

Tri Origin signed a deal with BHP Billiton to evaluate the latter's Kivalliq properties in Nunavut for gold and base metals. The property lies ~175 km west of Arviat and comprises 5 claim blocks covering 24 275 acres. BHP Billiton is funding the program, which consists of evaluation of targets

outlined by regional geological and "MEGATEM" airborne geophysical surveys completed by BHP Billiton. Gold values of up to 4.8 g/t have been obtained from samples collected during initial surface prospecting. Target areas based on these initial results have been selected in consultation with BHP Billiton. The objective of this work phase is to prioritize target areas and, if warranted, recommend a program of follow-up drilling. By providing technical and management services during this phase of the project, Tri Origin retains the right to enter into joint venture participation in the project. Results will be evaluated and reported to BHP Billiton, who will then have the option to precede with the project as to a 100% BHP Billiton interest or to offer an earn-in option to Tri Origin.

Polaris Zn-Pb Mine shut down on September 4, 2002 after exhausting its ore reserves and having produced 2.6 million tonnes of zinc and 666,000 tonnes of lead in concentrates over a twenty year mine-life. Teck-Cominco, SNC-Lavalin Engineers and Constructors Inc. began work on the decommissioning and reclamation of the Polaris Mine in early September, 2002. Work is scheduled to be completed in October of 2004. Total value of the contract is \$32 million. Tower Arctic Ltd, Equipements industriels Robert Itee and Qikitaaluk Corporation have been hired as subcontractors for the decommissioning of the mine.

Nanisivik was an underground Zn-Pb mine that operated for a total of 28 years and produced approximately 2.9 million tons of zinc concentrate. Recently Canzincco agreed to sell Wolfden Resources the dense media separation plant, dock and loading facilities as well as several generators. In return, Wolfden will take responsibility for the environmental remediation in areas where the purchased equipment was originally located.

