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# **Industry, Economic Development and Mines**

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## **Annual Report 2003 – 2004**

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**Manitoba**



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His Honour John Harvard, P.C., O.M.  
Lieutenant Governor of Manitoba  
235 Legislative Building  
Winnipeg MB R3C 0V8

Your Honour:

I am pleased to present the Annual Report for the Department of Industry, Economic Development and Mines for the fiscal year ending March 31, 2004.

Respectfully submitted,

Scott Smith  
Minister

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Honourable Scott Smith  
Minister of Industry, Economic Development and Mines  
Room 358, Legislative Building  
Winnipeg, Manitoba

Dear Minister:

I have the honour of presenting the Annual Report for the Department of Industry, Economic Development and Mines for the period April 1, 2003 to March 31, 2004.

The activities and efforts undertaken by the department with our industry partners, support our vision of Manitoba obtaining an internationally competitive economy, with the best quality of life in the world.

The mission of the department is to work collaboratively with businesses, people and communities to: increase their capacity to succeed; enhance the competencies they need to prosper; raise their profiles, locally, nationally and internationally; and foster an environment that supports sustainable economic growth.

Departmental activities support the goals of the department and the overall objectives of the Manitoba Government. Working towards Manitoba's vision, I am pleased to profile a few outcomes achieved in 2003/04:

- The Canada/Manitoba Business Service Centre C/MBSC responded to approximately 45,000 business and trade-related inquiries, with the C/MBSC website receiving approximately 9 million hits.
- Continued with the support of E-Business Service Centre which provides the information small and medium sized enterprises need to enable them to be aware and adopt e-commerce and e-business technologies within their business.
- Over 850 participants attended the 33, three-day Business Planning Workshops conducted throughout Manitoba, including 13 workshops delivered in the rural and northern areas.
- In March 2004, the Department in partnership with other Federal and Provincial departments, launched the first Uniquely Manitoba Gift Show. The Gift Show represented a product development and marketing initiative for craftpersons, artists and specialty food producers and was attended by 186 exhibitors and by over 500 buyers from Manitoba and other various provinces and states.
- Work continued with Manitoba's industrial sectors to encourage expansion through the identification of new opportunities and the adoption of new technologies. Some industry sectors such as aerospace continued to face the challenges related to weaker markets post 9-11. Many faced additional pressures brought on by the rising value of the Canadian dollar, increased off shore competition and the Bovine Spongiform Encephalopathy (BSE) crisis.
- Winpak decided to proceed with another major expansion to its Winnipeg operations. At the request of the company, Industry Consulting Services Branch facilitated negotiations with the City of Winnipeg on a number of key issues related to the expansion.
- The establishment of the Composite Innovation Center at Smart Park will assist a wide range of our industries in the development of light weight, high-strength composite materials which are now essential for future products related to fuel efficient vehicles, civil infrastructure and a wide variety of other manufacturing and construction applications.
- The Vehicle Technology Center to which Industry Consulting Services Branch provides staff and infrastructure support moved forward with several projects including the acquisition of a Multi Axis Simulation Table System to enhance the capability of Western Canada Testing Inc. (West Test of Portage la Prairie). This test equipment provides important additional services to Manitoba's transportation and equipment manufacturing industries.
- Under the *Provincial Nominee Program for Business* (PNP-B), since the Program's launch in October 2000, over 691 applications have been received, with 419 approvals to date. The average proposed investment in 2003 was \$378,000.00 and this level of investment is expected to climb. Prior to the launch of the Program, Manitoba was receiving 10 to 15 business immigrants per year, each one investing an average of \$100,000.00.

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- The PNP-B reports to date 44 businesses have now started in Manitoba with an investment of \$22,936,000.00.
  - Industry Consulting continued to work with several partners and stakeholders towards the formation of an Advanced Manufacturing Initiative designed to assist local manufacturers to adopt the most advanced manufacturing methods and technologies to ensure their ongoing competitiveness.
  - Improved metal prices in 2003, has resulted in a resurgence of exploration activity in Manitoba, particularly for gold and nickel. The number of mining claims issued increased from 784 in 2002 to 941 in 2003, an increase of greater than 20%.
  - Release of new geoscience data by the Manitoba Geological Survey (MGS) resulted in a resurgence of diamond exploration in the northeastern part of the province during the latter half of 2003. Applications have been received for 25 new diamond exploration licenses covering an area of over 7,000 square kilometers. These were issued to eight different companies, four of which are Manitoba-based.
  - Partnerships and collaborative projects continue to expand the ability of MGS to provide a wide range of geoscience programs in Manitoba. In 2003/04, collaborative programming with federal and provincial agencies, industry and academia generated approximately \$1.5 million in additional geoscience funding for projects in Manitoba.
  - The annual Manitoba Mining and Minerals Convention hosted over 750 industry stakeholders and provided a venue for stakeholders to learn of the latest government geological information releases, exploration and mining services and business opportunities.
  - Major outreach activities were undertaken with the mineral education initiatives such as the Manitoba Mining and Minerals Convention Schools Program and Provincial Mining Week, where over 2000 visitors participated in mining related activities at The Forks.
  - A successful pilot Prospector Training program was completed in partnership with Sagkeeng First Nation. Building on this success, a new Outreach initiative developed in collaboration with Keewatin Community College was initiated to delivery community based programming across the north to develop basic field skills as well as prospecting.
  - In 2003, the petroleum industry spent \$99.6 million in Manitoba to drill 25 exploratory and 69 development wells, to operate over 2,000 wells and transport crude oil and refined petroleum products within the province. The Petroleum Branch released from its rehabilitation program a combined total of 99 abandoned well and oil and salt water spill sites that had been fully rehabilitated.
  - The Petroleum Branch hosted a public meeting in Virden and a number of meetings with industry stakeholders to obtain public input and comments on proposed amendments to oil and gas legislation. The Manitoba Drilling Incentive Program established under the Crown Royalty and Incentives Regulation was extended to January 1, 2009. The incentive program was also enhanced to encourage continued investment in Manitoba's oil and gas resources.
  - The Mineral Resources Division has begun work, in partnership with the Geological Survey of Canada and Saskatchewan Industry, Trade and Resources, on a two-year project under the Targeted Geoscience Initiative II to study the architecture and hydrocarbon potential of the Williston Basin.
  - The department has made advances in French language service delivery to our Francophone clients: Small Business Development Branch developed and delivered workshops and seminars in French; the Business Start Program was delivered at the St. Boniface Bilingual Service Centre; new mineral education materials were produced in French; a French component was incorporated into Provincial Mining Week campaign held at The Forks and the Schools Program at the Manitoba Mining and Minerals Convention; and a bilingual quarry inspector in the Mines branch was hired to service the eastern Manitoba area.

The department supports the Principles and Guidelines set out in The Sustainable Development Act. Sustainable development initiatives undertaken within the operation of the department's programs are: minimizing waste through the efficient use of office supplies and recycling; increased utilization of the internet to communicate and disseminate information to our internal and external clients; delivery of a variety of workshops, seminars, business counseling sessions and research assistance suitable for use by businesses involved with the production/delivery of environmental products and services; and participation on various sustainable development committees and working groups such as the Code of Practice; Financial Management and Sustainability Reporting teams.

The Petroleum Branch has implemented an internal policy that gasohol should be utilized as the fuel of choice for inspection vehicles, where available. During 2003/04, 41.4% of the fuel used by the Branch was gasohol, compared with 40% in 2002/03.

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Under the Manitoba Orphan Mine Site Rehabilitation Program work was completed for items related to safety and environmental issues at Sherridon, Gods Lake and Baker Patton. The total Manitoba Orphan Mine Site Rehabilitation Program's budget of \$250K was entirely expended.

Under the Pits and Quarries Rehabilitation Program, over 116 projects were completed at a cost of \$1.5 million.

Emergency Measures Organization (EMO) participated in the expansion of the Red River Floodway. EMO has been involved in the development of legislation and has been delegated with responsibility for providing compensation for those who are flooded as a result of the operation of the Floodway. The Floodway is a major investment in sustainability from the perspective that reducing the likelihood of major damages from flooding avoids the massive consumption of resources needed to rebuild from a major flood.

The department will continue to undertake initiatives and strategic planning that will contribute to the success of Manitoba business expansion, job growth and mineral investment.

Respectfully submitted,

Hugh Eliasson

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## **PREFACE**

### **INTRODUCTION**

In November of 2003, the department was re-organized resulting with Manitoba Trade and the Manitoba Office in Ottawa being transferred to Intergovernmental Affairs and Trade. The Manitoba Horse Racing Commission was transferred to Agriculture, Food and Rural Initiatives. Emergency Measures Organization was transferred into the department from Transportation and Government Services. These changes resulted in a change to the departments name to Industry, Economic Development and Mines (IEDM).

### **REPORT STRUCTURE**

The Annual Report is organized in accordance with the department's appropriation structure as at April 2003 and in the Main Estimates of Expenditure for the Province. The Report includes financial performance and variance information at the main and sub-appropriation levels and information relating to the department's objectives and results at the sub-appropriation level. The Report also includes information about associated agencies, business assistance, revenue and expenditures, a five-year comparison of expenditures and a staffing analysis.

### **STATUTORY RESPONSIBILITIES**

The Minister of Industry, Economic Development and Mines is responsible for the following:

The Crocus Investment Fund Act  
The Design Institute Act  
The Development Corporation Act, D 60  
The Electronic Commerce and Information Act (except Part 5)  
The Emergency Measures Act  
The Emergency 911 Public Safety Answering Point Act  
The Gas Pipe Line Act  
The Gas Allocation Act  
The Greater Winnipeg Gas Distribution Act (S.M. 1988-89, c. 40)  
The Income Tax Act (sections 7.5 to 7.10)  
The Labour-Sponsored Venture Capital Corporations Act  
The Liquor Control Act  
The Manitoba Lotteries Corporation Act  
The Mines and Minerals Act  
The Mining and Metallurgy Compensation Act  
The Oil and Gas Act  
The Oil and Gas Production Tax Act  
The Statistics Act  
The Surface Rights Act

Schedule "L", Order-In-Council 395/2003; and  
Schedule "R", Order-In-Council 395/2003



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## **SUSTAINABLE DEVELOPMENT**

The department is committed to the Principles and Guidelines set out in The Sustainable Development Act and works to have them incorporate in department activities, programs and business practices.

The Principles and Guidelines of Sustainable Development are:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding
4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global Responsibility
8. Efficient uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation.

The Sustainable Development Procurement Goals:

14. Education, Training and Awareness
15. Pollution Prevention and Human Health Protection
16. Reduction of Fossil Fuel Emissions
17. Resource Conservation
18. Community Economic Development

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## ORGANIZATION

The department's 2003/04 organization structure is illustrated in the Organization Chart, page i. The Vision, Mission, Critical Priorities, roles, responsibilities and staffing are outlined in the following information.

### ROLE AND MISSION

The Vision of Industry, Economic Development and Mines is: ***An internationally competitive economy, with the best quality of life in the world.***

The Mission of Manitoba Industry, Economic Development and Mines is to work collaboratively with businesses, people and communities to:

- increase their capacity to succeed;
- enhance the competencies they need to prosper;
- raise their profiles, locally, nationally and internationally; and
- foster an environment that supports sustainable economic growth.

### CRITICAL PRIORITIES

In pursuit of the vision the department has identified the following Critical Priorities:

- productivity and competitiveness;
- international economic opportunities
- community capacity
- sustainable resource development (Stewardship)

Productivity and Competitiveness

- *Create an environment in which:*
- companies have the will, capacity and competencies to continually invest in more efficient and innovative production techniques; and
- the labour force is willing and able to participate in the opportunities that are provided.

International Economic Opportunities

- *Create an environment in which:*
- companies understand and embrace the importance of being internationally competitive; and
- companies have the will, capacity and competencies to do so.

Community Capacity

- identify communities that require support to plan and grow local economic initiatives;
- create an environment in which they have the capacity and competencies to be able to control their own economic goals and success.

Sustainable Resource Development (Stewardship)

- create an environment in which organizations have the will, capacity and competencies to incorporate sustainable development principles into their economic decision making.

### **Guiding Principles (re: management practices)**

Collaboration: with, our clients; our partners; other levels of government; and between Manitoba government departments and colleagues.

Proactivity: thinking strategically; planning and taking the right steps to create the environment we seek, planning together, involving the right people from the start.

Responsiveness: assessing the impact of events and changing economic circumstances; acting quickly to coordinate effective responses; and remaining in line with our Vision and Mission

Fiscal Restraint: innovative and effective use of available resources; creative thinking and working together to get best use of resources; and targeting available resources strategically, in line with our Vision and Mission. Confidential

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Cooperative Economic Approach: strategic partnerships with businesses, communities and people; seek to understand clients' needs rather than impose solutions; consider specifically the needs of Aboriginal communities; and decisions/actions that promote inclusivity, equity and sustainable development.

In order to achieve the mission, the department is organized in five divisions:

**THE ADMINISTRATION AND FINANCE DIVISION** provides provides policy support in trade and economic development to the department and across government; co-ordinates and supports departmental strategic and business planning and knowledge management initiatives; and co-ordinates the economic and labour force statistical system to adapt to the changing policy and program requirements of the Manitoba government and Crown agencies.

**THE BUSINESS SERVICES DIVISION** provides or facilitates businesses' access to capital to spur the establishment and expansion of enterprises and provides assistance and support for mineral exploration and development projects to improve the economic and environmental status of Manitoba; provides sector expertise to businesses in the areas of marketing, technology business development and management; provides department-wide marketing support and development of promotional products; co-ordinates and delivers a range of services for the enhancement and growth of Manitoba's entrepreneurial and small business community; and increases inward investment to attract businesses and business people to Manitoba through general promotion, business or company recruitment, and entrepreneur recruitment.

**THE MINERAL RESOURCE DIVISION** promotes wise land management and environmentally sustainable economic development in the province based on Manitoba's mineral and petroleum resources; provides authoritative documentation of the province's mineral and petroleum endowment and development potential; delivers mineral incentive programs; administration of legislation governing the disposition of mineral and petroleum rights, exploration, development and production of Manitoba's mineral and petroleum resources and, the rehabilitation of mines, quarries and abandoned petroleum sites; provides for the resolution of disputes between surface and/or mineral rights holders with respect to accessing minerals including oil and gas.

**COMMUNITY AND ECONOMIC DEVELOPMENT** provides analytical expertise and administrative support to the Community Economic Development Committee of Cabinet; co-ordinates all major government initiatives relating to community and economic development in the province; provides advice and support in the on-going development of Manitoba's economic strategy including identifying priorities, solicits community input and assists in formulating policy and recommendations.

**EMERGENCY MEASURES ORGANIZATION** working closely with all levels of government, the private sector, volunteer agencies and other non-government agencies promotes and coordinates emergency preparedness, emergency response and disaster recovery to prevent the loss of life, and to minimize damage to property and the environment. MEMO is responsible for the administration and delivery of the Disaster Financial Assistance (DFA) program. DFA provides assistance to Manitobans who have suffered losses as a direct result of a wide-spread disaster.

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## ADMINISTRATION AND FINANCE

### MINISTER'S SALARY AND EXECUTIVE SUPPORT

The Administration and Finance Division comprises the Executive Support Offices, Financial and Administrative Services, Policy, Planning and Coordination, and Manitoba Bureau of Statistics.

#### EXECUTIVE SUPPORT

Executive Support includes the Offices of the Minister and Deputy Minister. The Minister provides leadership and direction to ensure the goals and objectives of the department are accomplished. The Office of the Deputy Minister provides the Minister with advice and information regarding issues and matters of concern to the department. Executive Support is responsible for providing the department with policy direction and the overall planning and co-ordination of departmental activities.

##### 10-1(a) Minister's Salary

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Minister's Salary	28.8	1.00	29.0	(0.2)	
<b>Total Expenditures</b>	<b>28.8</b>	<b>1.00</b>	<b>29.0</b>	<b>(0.2)</b>	

##### 10-1(b) Executive Support

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	418.3	7.00	384.7	33.6	
Total Other Expenditures	76.6		81.7	(5.1)	
<b>Total Expenditures</b>	<b>494.9</b>	<b>7.00</b>	<b>466.4</b>	<b>28.5</b>	

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## FINANCIAL AND ADMINISTRATIVE SERVICES

Financial and Administrative Services comprises of three primary components; Financial and Administrative, Information Technology and Human Resource Services. The branch is a cooperative unit and provides services to the departments of Industry, Economic Development and Mines (IEDM) and Energy, Science and Technology (EST).

### OBJECTIVES

The goals of Finance and Administrative Services is to: provide leadership, and support in all aspects of human resource management, pay and benefits service, labour relations and occupational safety and health; provide timely, accurate, consistent, and meaningful financial and administrative services and information and; assist the department by coordinating the delivery of department and government wide information technology initiatives and by providing expertise and support program direction. The Branch is customer responsive by providing high quality and timely services such as policy development, administrative and financial management, information technology, and human resource services to the Departments of IEDM and EST and its related Agencies through a centralized support service.

### ACTIVITIES/RESULTS

In support of the branch goals and the mission of the Department, the branch processed payments and receipts; provided computer business application development and support services; recruited, deployed, trained and paid staff; administered and coordinated the Department's parking and pool vehicle programs; provided for physical accommodations including furniture and equipment and mail distribution; provided advisory and specialized accounting and financial management services to departmental personnel and related entities; coordinated French language services; supervises the Freedom of Information and Protection of Privacy Act; managed the department's records management program and provided timely, accurate and relevant information to departmental and central agency decision-makers including budgetary and cash flow information to Treasury Board.

**In 2003/04 Financial Services** processed the following for IEDM and EST; 44,414 payment/revenue transactions and 480 authority-seeking documents (266 for IEDM and 214 for EST) and 69 Freedom of Information requests (41 for IEDM and 28 for EST).

In addition, the section prepared the Detailed Estimates, Estimates Supplement, Annual Report and all other year-end financial reports for both, IEDM and EST.

**Human Resource Services** provides staffing, employment equity, job analysis and classification, employee counselling, labour relations, and pay and benefits administration. The shared resources of the unit also provide staff and organizational development, occupational health and safety, and employment equity program development.

Human Resource (HR) staff that support IEDM are part of the consolidated HR unit that also services the Departments of Culture Heritage and Tourism, EST, Finance and the Office of the Auditor General.

Activities are carried out in accordance with The Civil Service Act, the Manitoba Government Employee Union Master Agreement, Manitoba labour laws, and Workplace Health and Safety legislation.

Specific activities of Human Resource Services for IEDM during 2003-2004 included:

- The branch continues to co-ordinate the implementation of government-wide policies and initiatives.
- Four permanent and three temporary position vacancies were filled through formal competition process for IEDM. Seven positions were filled through various direct appointments.
- Prepared detailed classification analysis on nine reclassification requests under delegated and non-delegated authority.
- Consulted with management/supervisory personnel, employees and the M.G.E.U. in the resolution of various labour relations issues, which included the filing of one selection appeal.
- Maintained payroll records for 304 IEDM employees.
- Provided benefit information on 23 employee appointments, retirements, death benefits, long term disability and lay-off to IEDM employee/family members.
- IEDM participated in the various internship programs offered through the Civil Service Commission.
- Staff attended seminars totalling approximately 18 days of learning events for IEDM and EST that were designed and delivered in 2003. These events range from Project Evaluation, Performance Conversations, Managing Change, and Competency Based Management Leadership Development.
- Organizational consulting consisted of advice and recommendations on organizational design and facilitation of strategic planning and the integration of Civil Service Initiatives into organizational culture.
- Formulated Workers Compensation statistics for distribution to various branches within IEDM in which two accident/injury claims were reported resulting in no lost time.
- Attendance management, workstation assessments and the Return to Work and Workers Compensation claims management programs have resulted in reducing the Department's overall claim costs.
- Baseline and periodic audiograms are conducted as part of the IEDM's Hearing Conservation Program.

**Employment Equity Statistics as at Fiscal Year End**

IEDM	2000-2001 Actual (%)	2001-2002 Actual (%)	2002-2003 Actual (%)	2003-2004 Actual (%)
Aboriginal	3.3	4.4	4.2	4.6
Women	47.7	47.1	47.9	49.6
Persons with Disability	2.5	2.9	2.9	2.9
Visible Minority	2.9	2.9	3.4	3.4

**Computer Services** provides the department with Information Technology support services including: computer systems design and implementation; equipment evaluation and acquisition (outside Desktop Initiative); user education and assistance (outside the standard suite); and, implementation of government wide initiatives from the Office of Information Technology and adherence to guidelines and standards set.

Additional Computer Services activities undertaken for IEDM during the year included:

**Minerals Division**

- Developed and implemented the On-line Publications Catalogue / E-store on the government Internet Website. This allows clients to make a purchase for Manitoba Geological Reports and Maps securely on the internet using a credit card.
- Developed and implemented Fulfillment System and Financial Reconciliation System for the On-line Publication Sales. This allows publication sales clerk to fulfill orders to Publications Sales made on-line and for the financial clerk to reconcile on-line transactions with various financial reports respectively.
- Migrated all workstations in the Minerals Division from NT to XP platform. This involved in identifying hardware and software for each user, testing and packaging custom applications and third party software on the XP environment.

- Work continued on the GIS Map Gallery by adding more customizations and enhancements. Provided extract capability to allow users to select the features of interest and download a zipped shape file containing visible layers. Customized the query find in ArcIMS making it easier to search for data as it is no longer case sensitive.

Industry Division

- Created Uniquely MB website to promote and market the products of Manitoba Small Businesses.
- Created a website to share documents, communicate ideas and to facilitate collaboration on issues among members of the Premier's Economic Advisory Council.
- Refreshed 200 computers and re-engineered applications to XP.
- Moved application technology platform and applications from Lotus Notes 5.x to v6.5.
- Created a new database to quickly and easily disseminate information to Manitoba Municipalities for Manitoba Emergency Measures Organization.

**10-1(c) Financial and Administrative Services**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	1,213.6	19.50	1,164.3	49.3	
Total Other Expenditures	301.5		333.7	(32.2)	
Total Computer Services	105.3		110.0	(4.7)	
Less: Recoverable from Energy, Science and Technology	(150.0)		(150.0)	-	
<b>Total Expenditures</b>	<b>1,470.4</b>	<b>19.50</b>	<b>1,458.0</b>	<b>12.4</b>	

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## **POLICY, PLANNING AND COORDINATION**

### **OBJECTIVES**

Policy, Planning and Coordination's objective is to provide analytical, advisory and research support services, on behalf of the Department's of Industry, Economic Development and Mines and Intergovernmental Affairs and Trade, to the Ministers, Cabinet and other provincial departments and agencies. This includes undertaking analysis of policy issues, providing critical information and working closely with other partners to promote economic development in Manitoba.

### **ACTIVITIES/RESULTS**

The Branch manages the ongoing implementation of the Agreement on Internal Trade in Manitoba. Efforts in this area include: supporting the Minister's participation as a member of the Ministerial Committee on Internal Trade; serving as Manitoba's Internal Trade Representative; co-ordinating the government-wide participation in the Agreement; and monitoring disputes arising under the Agreement. During 2003-2004 Premiers' demonstrated their collective commitment to resolve long-standing challenges related to domestic trade by establishing the Council of the Federation. Policy, Planning and Coordination supports the Premiers of Manitoba and New Brunswick in their role as co-leaders of this Council of the Federation initiative. Policy, Planning and Coordination also serves as the lead for coordinating and reporting Manitoba's activities pursuant to the Council of the Federation's Internal Trade Workplan.

The Branch acts as lead agent in governmental and intergovernmental matters related to international trade policy. The Branch develops provincial policy with regard to existing international trade agreements such as the North American Free Trade Agreement (NAFTA) and the World Trade Organization (WTO). The Branch also works to ensure that Manitoba priorities and concerns are appropriately reflected in new trade negotiations (e.g. Free Trade Area of the Americas (FTAA) and the General Agreement on Trade and Services GATS). Policy advice is also provided for trade issues and disputes in such areas as US trade remedy actions on wheat and softwood lumber. The Branch provides support to the Minister of Intergovernmental Affairs and Trade and the Associate Deputy Minister of that Department for Conferences, including meetings of Ministers responsible for International Trade and Deputies of International Trade and provides briefing materials for the annual Western Premier's, Western Governors and Premier's Conferences.

Planning support is provided to the Department, this includes, the development of the departmental business planning process, compilation of departmental submissions for Ministerial briefing books, and the monitoring and tracking of issues related to Manitoba's economy. The Branch chairs the Inter-Departmental Business Planning Co-ordinators Council to assist the development of government-wide business planning.

The Branch represents the Government of Manitoba on the Provincial-Territorial Advisory Committee and the Trade Advisory Committee of the Standards Council of Canada. This function involves interdepartmental co-ordination to represent Manitoba's views on standards-related issues before the Council.

Economic analysis, policy advice, interagency liaison, and selected other services are also provided to the Department by the Branch.



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**10-1(d) Policy, Planning and Coordination**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>Estimate 2003/04 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	409.7	6.00	403.7	6.0	
Total Other Expenditures	116.0		147.8	(31.8)	1
<b>Total Expenditures</b>	<b>525.7</b>	<b>6.00</b>	<b>551.5</b>	<b>(25.8)</b>	

1. *Variance due to expenditure management.*

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## MANITOBA BUREAU OF STATISTICS

### OBJECTIVES

The primary role of the Manitoba Bureau of Statistics (MBS) is to serve the informational requirements of the Manitoba Government, its departments and crown agencies. Specific objectives are:

- to actively participate in and coordinate the development of the Manitoba statistical system in terms of information needs, collection, dissemination, analysis and presentation; and
- to adapt the Manitoba statistical system to address changing policy and program requirements and emerging issues.

In order to further its objective, MBS functions as the designated focal point for interface between the Province and Statistics Canada.

As the provincial central statistical agency, MBS has the following characteristics:

\*Impartiality   \*Selective Specialization   \*Surveys   \*Coordination   \*Legislative Mandate

### ACTIVITIES/RESULTS

The MBS strategic thrust is the provision of comprehensive information services to the Manitoba government, its agencies, the business community, and the general public. This strategy is carried out through four major areas of activity:

- responding to requests for MBS developed information; and liaison/coordination with Statistics Canada, provincial user departments/crown agencies, and with other provincial statistical agencies;
- providing common information services in order to avoid duplication of effort and costs in the areas of information collection, analysis and dissemination; and provision of relevant information to senior and executive levels of government;
- undertaking information development, survey consulting/design, statistical consulting, economic impact assessments, information processing, web-based information dissemination systems development, and adequacy of surveys; and
- administrating the Bureau of Statistics and The Statistics Act (Chapter S205).

MBS is a service-driven agency. Selected activities and achievements are as follows:

**Business Plans** - MBS surveyed both senior managers and MBS clients in the provincial government to confirm whether programs and plans for future work are meeting the needs of our core users. An MBS Action Plan was developed to incorporate the lessons identified. From the surveys, 86% of senior managers rated MBS as effective or very effective in meeting the government's statistical information needs. In addition, 100% of clients graded the service provided by MBS staff as excellent or good. MBS implemented a number of the action plan items in 2003-04 including the establishment of the MBS Intranet web site and the production of the brochure, "Reliable Information Services for Government".

**Economic Accounts** – MBS maintained an economic accounts framework for the Manitoba economy. These annual accounts measured the overall performance of the provincial economy, with additional detail about principal industries and sectors. Information from the Economic Accounts is used throughout the public and private sectors in Manitoba. Preliminary economic growth estimates for 2003 were released in February 2004.

**Manitoba Population Estimates** – Continued liaison with Statistics Canada and other provincial and territorial statistical agencies regarding the determination of the appropriate statistical methodology to be

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used to determine provincial and territorial population estimates. These population estimates are of critical importance as they are used to determine Manitoba transfer payments. After extensive consultations with the provinces and territories, Statistics Canada revised its population estimates back to 1971. As a result, Manitoba's population received the largest relative increase and was one of only two provinces whose population was increased.

**Statistical Information Product Subscriptions** – Departmental subscriptions to the full MBS subscription service totalled 13 (5 Manitoba government, 2 municipal government, 2 federal government and 4 business). In addition, the Legislative Library received six complete sets of MBS information products free of charge.

**Key Economic Indicator Reports** – These reports encompass indicators such as the Labour Force, Consumer Price Index, Population, and Investment. Relevant information is presented in both table and chart formats, and distributed on the day of release to selected Ministers and senior government officials. In addition, the “Quarterly Economic Summary”, highlighting recent provincial economic developments, continued to be produced.

**Statistical, Economic and Computer Consulting** – Statistical, economic, computer and survey consulting services were provided to departments and crown agencies on both a “public good” basis and a cost-recovery basis (larger consulting projects). Major consulting activities have included economic impact assessment of various provincial economic initiatives for provincial departments.

**Contract Surveys and Information Development** – MBS designed and implemented surveys/information development projects for individual departments and crown agencies on a cost-recovery basis. Projects included Industry, Economic Development and Mines - Trade Statistics Database. MBS continued to conduct the Prices Monitoring Survey in 12 northern Manitoba communities, Brandon and Winnipeg.

**Information Dissemination System** - MBS has continued to enhance its desktop accessible information systems (e.g. InfoNet, Infoline, Trade, and StatsBase). These systems are accessible via the new MBS Intranet web site. MBS StatsBase, which enables quick access to historical information series on a wide range of topics, was made available for testing by provincial government staff.

**Interdepartmental Liaison** – MBS assisted individual provincial departments and crown agencies with their statistical activities and problems with the objective of avoiding duplication of effort and costs.

**Federal-Provincial Liaison** - Represented Manitoba's views on statistical matters to Statistics Canada including possible new methodologies to determine Manitoba's population. This activity had a significant impact on the level of federal transfer payments that Manitoba receives. As part of the national statistical system, MBS represents Manitoba on the Consultative Council on Statistical Policy as well as a number of other subject matter statistical committees.

**Information Requests** – MBS responded to inquiries for information from MBS developed databases (Economic Accounts, Investment Statistics, Trade Statistics, Business Register, Vital Statistics, Postal Code Translator File). As well, MBS responded to requests for non-MBS developed data. These information requests ranged from those requiring a single quick response to those that required the development of custom computer-generated reports.

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**10-1(f) Manitoba Bureau of Statistics**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	653.1	14.00	798.7	(145.6)	
Total Other Expenditures	207.3		164.0	43.3	1
Less: Recoverable from Other Appropriations	(47.9)		(60.0)	12.1	
<b>Total Expenditures</b>	<b>812.5</b>	<b>14.00</b>	<b>902.7</b>	<b>(90.2)</b>	

1. Variance due to the Population Consultation Project.

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## BUSINESS SERVICES

### INDUSTRY DEVELOPMENT - FINANCIAL SERVICES

#### OBJECTIVES

The role of the Financial Services Branch is to facilitate the creation, growth and expansion of businesses in Manitoba. The role is one of support to the government's economic development strategies. In providing the support the Branch performs five functions:

- administer several of the programs that provide financing assistance to businesses;
- provides expertise on business case development and business financing;
- provides best practices expertise for the use of economic development tools;
- administers the affairs of the Manitoba Development Corporation; and
- provides accounting and financial management services to other units in the government.

#### ACTIVITIES/RESULTS

##### PROGRAMS UNDER ADMINISTRATION

**Manitoba Industrial Opportunities Program (the MIOP Program)** The MIOP Program provides financial support to assist businesses to expand in Manitoba. The financing is in the form of repayable, secured loans and the repayment terms can be somewhat flexible. Favorable interest rates are available to businesses that undertake significant investment in fixed assets and/or create new jobs. The loans usually are in the range of \$250,000 to \$5 million. Since its inception in 1988 the MIOP Program has loaned a total of \$282 million for 129 business expansion projects. This MIOP Program financing has levered \$848 million worth of private sector investment and approximately 14,500 jobs. In 2003/04 the Branch confirmed \$43.5 million worth of loans for six new business expansion projects. This \$43.5 million will lever \$163.9 million worth of private sector investment capital.

**Manitoba Business Development Fund (the Fund)** The Fund provides financial support to assist with business development activities in Manitoba. The financing is in the form of cost-sharing assistance and usually is non-repayable. The cost-sharing assistance usually is in the range of up to \$50,000 and usually is for up to 50% of the cost of the business development activity. The Fund has three sub-programs. The Technology Commercialization Program assists businesses with the development and/or application of new technology. The Feasibility Studies Program assists businesses and business-support organizations with the assessment of new business opportunities. The Special Projects Program assists businesses and business-support organizations with initiatives that are of strategic significance to Manitoba's economy. In 2003/04 the Branch confirmed cost-sharing assistance for 42 new business development projects.

**Manitoba Equity Tax Credit Program (the METC Program)** The METC Program provides financial support to assist Manitoba-based companies in obtaining public market financing. The financing is in the form of tax credits. The tax credit benefits are provided to Manitobans that buy and hold qualifying securities of qualifying businesses. Manitoban businesses may qualify for up to \$5 million per year worth of tax-creditable securities. Since its inception in 1999 the METC Program has assisted three businesses in "going public" and has levered \$6.6 million worth of private sector investment capital.

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**Third-Party Investment Funds Program (the Investment Program)** The Investment Program provides financial support to assist Manitoba-based venture capital investment businesses in attracting private sector investment capital. The financing is usually in the form of equity and is usually ranked pari passu with the private sector equity capital. The equity investments usually are in the range of \$3 million to \$5 million and usually are for up to 20% of the committed capital. Since its inception in 1996 the Investment Program has invested a total of \$17 million into 5 venture capital investment businesses. The Investment Program has levered \$80 million worth of private sector investment and placements of capital into 80 operating companies. The Branch is finalizing an investment of up to \$5 million into a sixth venture capital investment business. The \$5 million will lever between \$20 million and \$30 million in private sector investment capital.

**Manitoba Film & Video Production Tax Credits** - Financial Services works closely with Manitoba Film and Sound and the Departments of Finance and Culture, Heritage and Tourism on the administration of the Manitoba Film and Video Production Tax Credit Program. During the year, Financial Services staff took a leadership role in development of a package of enhancements for the consideration of Cabinet for the 2004/05 Provincial Budget. Financial Services also reviews and processes tax credits for the signature of the Minister of Industry, Economic Development and Mines. During the year ended March 31, 2004, tax credits were processed for 42 productions, involving \$4,320,069 in film tax credits.

**Labour-Sponsored Investment Funds Program (the LSIF Program)** The LSIF Program provides financial support to assist labour-sponsored investment funds (LSIFs) in attracting private sector investment capital. The financing is in the form of tax credits. The tax credits benefits are provided to Manitobans that buy and hold qualifying securities of qualifying LSIFs. LSIFs may qualify for up to \$30 million per year worth of tax-creditable securities. Since its inception in 1992, the LSIF Program has levered a total of \$310 million worth of private sector investment and placements of capital into 77 operating companies. In 2003/04 the Branch confirmed investment of a total of \$44 million into two LSIFs.

### **SPECIAL PROJECTS**

**Capital Markets Initiative** The Branch is a leader in collaborative, multi-party efforts to strengthen the depth and breadth of the province's capital markets infrastructure. The leadership role arises from the Branch's expertise and contacts in the finance industry and mandate for facilitating business investment. In 2003/04 the Branch provided secretariat support to the Manitoba Local Investment Council. It also supported business development initiatives for the mining, biotechnology, health sciences, aerospace, film, financial services, manufacturing and agri-food businesses.

### **OTHER RESPONSIBILITIES**

**Manitoba Development Corporation (the MDC)** The MDC is the province's agents for administering repayable financial assistance. The Branch administers the MDC's portfolio of loans and investments. As at March 31, 2004, MDC had \$84.3 million in financial assets under management.

## 10-2(a) Industry Development - Financial Services

Expenditures by Sub-Appropriation	Actual 2003/04 \$	Estimate 2003/04 FTE	Estimate 2003/04 \$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	799.8	12.00	800.9	(1.1)	
Total Other Expenditures	287.6		380.8	(93.2)	
Program Delivery:					
- Manitoba Industrial Opportunities Program	9,712.4		9,807.5	(95.1)	
- Vision Capital Fund	692.2		799.6	(107.4)	1
- Manitoba Business Development Fund	1,606.2		1,313.1	293.1	2
- Third Party Managed Capital Funds	826.2		2,520.1	(1,693.9)	3
- Less: Interest Recovery	(4,070.4)		(6,968.3)	2,987.9	4
Mineral Industry Support Programs*					
- Mineral Exploration Assistance Program	2,011.1		2,500.0	(488.9)	5
- Manitoba Potash Project	144.6		196.5	(51.9)	6
- Acid Rain Abatement Program – Flin Flon	183.4		181.5	1.9	
- Prospectors Assistance Program	72.7		125.0	(52.3)	7
<b>Total Expenditures</b>	<b>12,265.8</b>	<b>12.00</b>	<b>11,656.7</b>	<b>609.1</b>	

\* Mineral Industry Support Programs are delivered and illustrated under the Mineral Resource Division

1. Interest expense was less than budgeted.
2. A multitude of special projects under the program resulted in an over-expenditure.
3. Interest and bad debt expense were less due to lower disbursements of funds.
4. Interest recoveries were lower as this is directly related to MIOP.
5. Due to expenditure management; expenditures are lower as funds were not reallocated to projects.
6. Interest costs were lower due to less funds drawn down and lower costs relating to interest and general operating expenditures.
7. Grant payments are based on project approval and receipt of customer invoices.

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## MANITOBA TRADE AND INVESTMENT MARKETING

In November of 2003, the department underwent a reorganization that resulted with the Trade component of Manitoba Trade and Investment Marketing (MTIM) being transferred to Intergovernmental Affairs and Trade (IAT). The program continued to collaborate with Intergovernment Affairs and Trade and provides marketing support activities to both departments.

### ACTIVITIES/RESULTS

#### **Business Investment**

The Business Investment Branch encompasses three areas of activity—general promotion, business recruitment, and entrepreneur recruitment (through the Provincial Nominee Program for Business). These activities are designed to attract business and businesspersons to Manitoba through greenfield investments, joint ventures, strategic alliances, plant expansions, and business acquisition.

The Branch responds to investment opportunities received from a number of sources—its web site, Canadian embassies and consulates, local business people, and other provincial and federal departments. Depending on the nature of the proposal, a response and assistance are coordinated with the department, other agencies, and the private sector. Inquiries encompass businesses in manufacturing, agricultural enterprises, property development, entertainment, and retail.

MTIM is the prime contact for investment activities with various federal government departments, including Investment Partnerships Canada, the Department of Foreign Affairs & International Trade (DFAIT), Industry Canada, and Western Economic Diversification. MTIM also participates in a number of joint activities with the federal government, including web site development, investment missions, development of the KPMG Study on Competitive Alternatives (and its accompanying model), and meetings with Trade Commissioners around the world.

In addition, MTIM is a member of Corenet Global (formerly the International Development Research Council), an association of site selectors; corporate real estate executives, many of whom are from Fortune 1000 companies in the U.S. and Canada; and economic development agencies.

***Provincial Nominee Program for Business*** – Since the Program's launch in October 2000, over 691 applications have been received, with 419 approvals to date. Countries include; Korea, China, United Kingdom, Taiwan, Iran, India and others. The average proposed investment in 2003 was \$378,000.00 and this level of investment is expected to climb. Prior to the launch of the Program, Manitoba was receiving 10 to 15 business immigrants per year, each one investing an average of \$100,000.00.

In 2002/2003, the Program took steps toward a self-funding model with the introduction of a \$75,000.00 deposit requirement for all approved nominees (the funds are released once the applicant has established their business). The deposit requirement commenced in June 2002. The interest income generated by the deposits is utilized to offset program costs.

To date 44 businesses now started with an investment of \$22,936,000.00.

#### **Industry Consulting**

Industry consultants provide knowledge to businesses (manufacturing, processing, and services sectors) in the areas of marketing, technology, business development, and management. Existing infrastructure advantages are used to encourage businesses to maximize economic development opportunities and encourage the commercialization and adoption of new technologies, and strategic alliances that will further strengthen and diversify Manitoba's industrial capabilities.

***Sector Development*** – Sector development activities provide an ongoing analysis of Manitoba's major industrial sectors including aerospace, manufacturing and food processing. Strengths, weaknesses, emerging trends, threats, and opportunities are considered. Sector profiles are developed and competitive comparisons with other major jurisdictions are carried out and monitored.

***Project Development*** – Project development activities within the branch are wide-ranging and include a variety of projects from those initiated by sector planning activities to those responding to specific requests



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from established companies. The objective of all project development activities is to create and maintain jobs and investment in Manitoba.

### ***Highlights of 2003/04***

Through 2003/04 Industry Consulting continued its work with Manitoba's industrial sectors to encourage expansion through the identification of new opportunities and the adoption of new technologies. Some industry sectors such as aerospace continued to face the challenges related to weaker markets post 9-11, many faced additional pressures brought on by the rising value of the Canadian dollar, increased off shore competition and the Bovine Spongiform Encephalopathy (BSE) crisis.

The decision by Winpak to proceed with another major expansion to its Winnipeg operations. At the request of the company, Industry Consulting facilitated negotiations with the City of Winnipeg on a number of key issues related to the expansion.

The establishment of the Composite Innovation Center at Smart Park will assist a wide range of our industries in the development of light weight, high-strength composite materials which are now essential for future products related to fuel efficient vehicles, civil infrastructure and a wide variety of other manufacturing and construction applications.

The Vehicle Technology Center to which Industry Consulting provides staff and infrastructure support moved forward with several projects including the acquisition of a Multi Axis Simulation Table system to enhance the capability of Western Canada Testing Inc. (West Test of Portage la Prairie). This test equipment provides important additional services to Manitoba's transportation and equipment manufacturing industries.

Industry Consulting continued to work with several partners and stakeholders towards the formation of an Advanced Manufacturing Initiative designed to assist local manufacturers to adopt the most advanced manufacturing methods and technologies to ensure their ongoing competitiveness.

A core element of Industry Consulting's work continues to be its individual project development activities with its project managers often taking a lead role in coordinating the activities and actions of other government departments and agencies to work with business to create new jobs and investment in Manitoba.

### **Marketing Support Group**

Marketing Support Group provides extensive promotional support to the Department through the coordination of marketing activities and development of promotional materials. The reorganization in November 2003 resulted in the transfer of Trade to Intergovernmental Affairs and Trade (IAT). As well as providing services to IEDM, Marketing Support also provides marketing services to Trade via a service agreement between IEDM and IAT.

The marketing activities engaged in by the Marketing Support Group include five key areas:

- Web sites and electronic marketing
- Advertising and communications
- Production of brochures
- Event marketing
- Market intelligence and information services

In 2003/04 - Manitoba Trade and Investment Marketing/Marketing Support Group continued to focus on key priorities:

- Partnerships with community organizations to promote "homegrown" economic development
- Development of e-marketing and web site capabilities
- A consistent and cohesive marketing strategy, message, and image
- Maintaining effective relationships with senior officials in government, external agencies, industry associations and consular posts abroad

#### *Web sites and electronic marketing*

As well as managing the MTIM web site (<http://www.manitoba-canada.com>) in 2003, the Marketing Support Group developed and maintained the IEDM website (<http://www.gov.mb.ca/itm/index.html>) and helped to facilitate the transfer of the investment function from the former Manitoba Trade and Investment

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site to the IEDM site. The Marketing Support Group continues to provide web-based support/service to Manitoba Trade.

In addition to making the changes to reflect the new departments, the Marketing Support Group also engaged in several other projects:

- converted Innovation Framework into a web-based format
- worked with Financial Services to develop a new Access to Capital section and database
- work was undertaken to update the Energy, Science and Technology site
- the Business of Science Symposium information was updated and completed
- Development work was done to assist in the creation of a new site for the Protocol Branch and the Ambassador program (IAT).
- Began work on updating and improving the design and layout of the Investing in Manitoba section of the IEDM website

#### *Advertising and communications*

Several advertising pieces were placed in various site selection and business style journals (both local and international) promoting Manitoba as a great place to invest, work and live. (Investing in Manitoba – IEDM) and also produced and placed several ads for Manitoba Trade.

The Group also prepared and cooperated in the preparation of two studies comparing the provinces with respect to factors affecting industrial competitiveness.

#### *Production of brochures*

The Group updated content for several departmental publications, including:

- Manitoba Industry Sector Summaries
- Manitoba Access Advantage Data Book
- Third party information pieces
- Export Services brochure (Manitoba Trade)
- Provincial Nominee for Business brochure
- Manitoba Quick Facts
- Manitoba, Diverse, Dynamic and Energetic

Updating and creation of slide presentations for such projects as:

- The master slide repository
- The Provincial Nominee for Business Program presentations in English, Mandarin and Korean
- Trade mission to South Africa
- Biovail presentation
- Global manufacturing presentation

The Group also provided collateral marketing materials to outgoing trade missions, trade visits and to non-governmental organizations pursuing trade and investment related promotions.

#### *Event marketing*

Event marketing support was provided for:

- Manitoba Mining and Minerals Convention, November 2003
- Business of Science Conference, October 2003
- Various trade missions
- Honouring Manitoba's Top 50 Fastest-Growing Businesses – the Department hosted this annual successful event, in cooperation with *Manitoba Business Magazine*, to honour Manitoba's top 50 fastest-growing companies.

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*Market intelligence and information services*

MTIM/Marketing Support Group continued to provide international *business development information products and services* to Manitoba clients/companies and information about Manitoba company capabilities for potential clients in overseas markets. The program involves data collection surveys with federal and provincial delivery partners, analysis, and dissemination.

A review was undertaken of the new databases requested by the Small Business Service Centre.

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**10-2(b) Manitoba Trade and Investment Marketing**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	900.4	17.00	1,190.5	(290.1)	1
Total Other Expenditures	836.3		826.6	9.7	
<b>Total Expenditures</b>	<b>1,736.7</b>	<b>17.00</b>	<b>1,736.7</b>	<b>(280.4)</b>	

1. *Due to vacant positions.*

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## SMALL BUSINESS DEVELOPMENT

Small business is recognized as the engine that drives the Canadian economy. The Branch's target client groups are the 34,000 small businesses in Manitoba that make up over 90% of all businesses in Manitoba, the self-employed entrepreneurs numbering 86,000 and new business ventures. Branch clients represent businesses from retail, wholesale and manufacturing to services, technology and home-based businesses.

### OBJECTIVES

The objective of the Small Business Development Branch is to provide the necessary tools for successful business development. The Branch's primary role is to develop, co-ordinate and deliver services and programs for the enhancement and growth of Manitoba's entrepreneurial and small business community. The Branch has recognized the multi-cultural nature of Manitoba's entrepreneurial community and has customized its programs to address the specific needs of these business people. Services in business management, business planning and access to capital are tailored to meet the needs of new entrepreneurs including women, Aboriginals, new immigrants, youth, people with disabilities and professionals.

### ACTIVITIES/RESULTS

The activities of the Branch are generic in scope with the intent of reaching a broad spectrum of individuals and business types. The major thrusts of the Branch are to assist small business start-ups and growth of existing businesses through the provision of management training, information services, counselling and financial assistance. Branch programs are developed in partnership with business associations, other government departments (federal and provincial), educational institutions and the public.

The Small Business Development Branch delivers extensive business information, business and trade library services through the Canada/Manitoba Business Service Centre, the E-Business Service Centre and a variety of programs and services including Business Start, Business Counselling, Manitoba Marketing Network and Entrepreneurial Development and Training. Business information, counselling services, business and trade library services are also delivered through the Western Regional Office in Brandon.

**Canada/Manitoba Business Service Centre** - Effective April 1, 1998, the Small Business Development Branch integrated services and co-located its programs with the Canada Business Service Centre into a single, highly visible, efficient operation to support Manitoba business development and entrepreneurship. The new business service centre which is known as the Canada/Manitoba Business Service Centre (C/MBSC) represents a single point of contact for current and accurate business information, extensive business and trade library services, market research and improving management effectiveness through business counselling and education programs. The C/MBSC also offers a full service website offering business development information, 10,000 links and an Interactive Business Planner.

In 2003/04, the C/MBSC responded to approximately 45,000 business and trade-related inquiries. In addition, the business counsellors of the Small Business Development Branch incurred approximately 6300 client interactions during the year. The C/MBSC website received approximately 9 million hits.

**C/MBSC Regional offices** - Through the Partnership Agreement with Western Economic Diversification, there exists 24 regional C/MBSC offices throughout Manitoba which will make business information and resources more accessible to all entrepreneurs throughout all regions of Manitoba.

**E-Business Services Centre** - The E-Business Service Centre (E-BSC), introduced in 2000/2001, within the C/MBSC, provides the information that small and medium sized enterprises need to enable them to be aware and adopt e-commerce and e-business technologies within their businesses. In 2003/04, the E-BSC responded to over 500 e-business related enquiries and delivered and/or facilitated in excess of 30 e-business related seminars and workshops to approximately 600 participants, including several in rural Manitoba.

**Entrepreneurial Development and Training Seminars** were provided in partnership with other agencies to more than 2,200 participants. These seminars included marketing, management development, How To Start A Small Business workshops, youth entrepreneurship workshops as well as a variety of other business and technology related topics. A senior student workshop was also held in 2003/04 and approximately 100 students from high schools in and around Winnipeg participated. The Manitoba Marketing Network delivered five workshops to 109 participants and counselled 42 small businesses. Workshops were held in Winnipeg, Brandon and St. Pierre.

**The Aboriginal Business Development Program**, promotes entrepreneurship training, business information, workshops and business counselling to Aboriginal entrepreneurs and community based organizations in the interest of developing small business and entrepreneurship. Ota-Miska, a resource directory outlining services available to Aboriginal people in Manitoba, was updated and was published and circulated to all agencies and organizations working with Aboriginal people. There exists nine C/MBSC regional offices which focus on Aboriginal Business Development, with over 50% of the clients being Aboriginal.

Under the **Business Start Program**, 41 loan guarantees totalling \$ 379,531 were approved in 2003/04. During the year, 856 participants attended the 33, three-day Business Planning Workshops conducted throughout Manitoba under the Business Start Program which includes 12 workshops conducted in the rural and northern areas.

**The Mobile Business Service Centre**, visited 16 rural and northern communities in conjunction with business seminars/events and handled more than 370 inquiries/referrals. Five business planning workshops were also conducted in rural and northern Manitoba on a variety of business related topics.

**Publications** developed by the Branch and the C/MBSC continue to be a valuable resource to the business community and support the Branch's training programs. The Branch, the C/MBSC and the E-BSC produce over 60 publications on a variety of subjects including business information, business planning, small business management systems, e-business and e-commerce, entrepreneurial handbooks and self-evaluation guides. Publications are distributed through the Branch, the Canada/Manitoba Business Service Centre and its regional offices, the E-BSC, the Mobile Business Service Centre, Western Regional Office in Brandon, and 39 business development outlets throughout Manitoba.

**Small Business Counselling Services** were provided to over 6,300 clients in 2003/04. Business Counsellors provided one-on-one business counselling to entrepreneurs and businesses in a number of sectors including retail, service and manufacturing. The Business Counsellors also conducted four workshops pertaining to starting a small business and marketing.

**Western Regional Office** – provides general business counselling services, management development training programs, business planning workshops and various resource materials and general business information to Brandon and the surrounding communities. In 2003/04, the Western Regional office responded to approximately 6,800 business related enquiries.

**Other Activities** - Branch staff partnered with other departments and agencies in the successful delivery of Small Business Week, Rural Forum 2003, the Young Entrepreneurs Program and the delivery of French-language services at the Bilingual Government Service Centres located in St. Boniface, St. Pierre and Notre Dame de Lourdes. The Branch supported and participated in a number of other projects including Uniquely Manitoba Gift Show, Manitoba Women Entrepreneur of the Year Awards, Manitoba Aboriginal Youth Achievement Awards, a variety of projects pertaining to Entrepreneurs with Disabilities, Junior Achievement Northern and Urban Aboriginal Youth, Senior Student Business Workshops, various Aboriginal economic development conferences and trade shows and Cultural Industries Training.

## 10-2(c) Small Business Development

Expenditures by Sub-Appropriation	Actual 2003/04 \$	Estimate 2003/04 FTE	Variance Over (Under)	Expl. No.
	\$	FTE	\$	

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Total Salaries & Employee Benefits	1,044.0	16.50	960.9	83.1
Total Other Expenditures	544.2		606.5	(62.3)
Total Grants/Transfer Payments	30.0		30.0	-
<b>Total Expenditures</b>	<b>1,618.2</b>	<b>16.50</b>	<b>1,597.4</b>	<b>20.8</b>

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# MINERAL RESOURCES

## MANITOBA GEOLOGICAL SURVEY

### OBJECTIVES

The primary roles of the **Manitoba Geological Survey (MGS)** are to provide geoscience information to support and facilitate mineral exploration in the province, and to conduct a broad range of geoscience activities that address land-use and environmental issues facing Manitobans.

Program objectives are:

1. To increase the geoscientific knowledge base of the Province, primarily by conducting field studies and systematic bedrock and surficial mapping
2. To increase the effectiveness of mineral exploration activities in both established mining areas and in frontier areas through relevant geoscientific projects
3. To promote effective land use and resource management
4. To evaluate environmental impacts and geohazards
5. To develop products that respond to clients' increasing needs for digital information
6. To maximize the range and impact of geoscience investigations through collaboration with industry, Federal, university and other provincial agencies
7. To provide minerals industry information to communities, aboriginal people, and the public at large, through outreach activities

The **Minerals Policy and Business Development** section of MGS is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities, administration of Manitoba's mineral exploration incentive programs and organizing and staging of the annual Mining and Minerals Convention. The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Industry, Economic Development and Mines, as well as all affected government departments.

### ACTIVITIES/RESULTS

#### GEOSCIENCE PROGRAM

The MGS conducts a wide range of investigations in Manitoba's Precambrian Shield, Western Canada Sedimentary Basin, and Hudson Bay Basin. Investigations include examination of exposed bedrock, subsurface materials, and surficial sediments including sand, gravel and organic deposits. Major field-based activities conducted by the MGS include bedrock mapping at regional to detailed scales, as well as more specialized, thematic projects.

The 2003–2004 geoscience program reflects a balance between providing support to traditional mining camps, stimulating new exploration and development opportunities in frontier areas, and supporting land-use, geohazard and development priorities in southern Manitoba. The program is reviewed annually by the Mineral Exploration Liaison Committee (MELC), composed of members of the Mining Association of Manitoba, the Manitoba Prospectors and Developers Association and the Manitoba-Saskatchewan Prospectors and Developers Association, as well as representatives from the University of Manitoba and the Geological Survey of Canada (GSC). Effective and efficient collaboration with the Geological Survey of Canada is achieved through the provisions of the Intergovernmental Geoscience Accord (renewed at Energy and Mines Ministers Conference 2002).

**Activities and results for 2003-04 are listed below as they pertain to overall Program objectives.**

#### **1. Increasing Manitoba's geoscience knowledge base**

Baseline geological mapping in the Precambrian Shield was conducted primarily in the Thompson Nickel Belt (TNB) and larger Superior Boundary Zone (SBZ), the northern Superior Province, and the Flin Flon Belt.

Fieldwork was conducted in the southern part of the exposed TNB, aimed at completing the geological

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compilation maps and accompanying. In part, this work was undertaken to address the need to widen exploration to new targets beyond those traditionally considered in the TNB.

Similarly, one of the objectives of MGS work along the western boundary of the TNB is to define more clearly the geographic limit for effective nickel exploration by establishing there the distribution of the Ospwagan Group (the host rocks for nickel mineralization in the TNB). Work by the MGS has shown that Archean basement rocks and/or remnants of Ospwagan-like supracrustal rocks extend into the margin of the Paleoproterozoic Kisseynew Domain. The inferred presence of Archean crust along the margin of the Kisseynew Domain may expand the geographic limits for effective nickel exploration.

Identifying the Ospwagan Group and its various formations on surface outcrops and in drillcore is clearly a first-order priority for effective exploration in the TNB. Modal analyses confirm that the presence of certain minerals is highly diagnostic of different groups of rocks that occur along the margins of the TNB and the Kisseynew Domain, and thus will aid mapping and core logging during mineral exploration.

A new collaborative program along the northern margin of the Superior Province was initiated in 2003. The three-year project is being conducted in collaboration with researchers from the universities of Alberta, Waterloo and Manitoba. It applies an integrated approach, including bedrock mapping, geochemistry, isotope geology, geochronology and structural studies. The region has considerable mineral potential, including nickel, platinum group elements and shear-hosted gold. Project components include:

- Bedrock mapping at Gull Rapids: to provide accurate bedrock maps and structural data of the Gull Rapids area for Manitoba Hydro engineering purposes, as well as for explorationists and other land-use clients;
- Structural studies at the University of Waterloo, sponsored by MGS: to provide a thorough understanding of the nature of major terrane-bounding shear zones within the SBZ, together with their deformation and timing;
- Bedrock mapping in the Split Lake Block, conducted by researchers at the University of Alberta.

The MGS is helping to sponsor a Ph.D. study of the Island Lake greenstone belt at Waterloo University. Identification of a similarity in ages of volcanism with those observed in the Red Lake greenstone belt suggests that contemporaneous processes were occurring on both the north and south margins of the North Caribou Terrane. These similar ages may have potentially important economic implications for the Island Lake greenstone belt, as the Red Lake greenstone belt hosts one of the world's richest gold mining camps.

In the northern Flin Flon Belt, MGS fieldwork is defining the prospectivity, nature and distribution of the distinctive tectonostratigraphic components through detailed (1:20 000-scale) geological mapping and geochemical investigations.

At Flin Flon, MGS has helped fund, together with the Saskatchewan Geological Survey and Hudson Bay Exploration and Development Co. Limited, detailed lithological mapping in the footwall of the Flin Flon, Callinan and 777 deposits. The mapping is being conducted by researchers at Laurentian University and has proven highly successful in establishing mine stratigraphy.

## **2. Increasing the effectiveness of mineral exploration activities**

Multidisciplinary studies in the Lynn Lake greenstone belt have been making progress over the past five years in advancing our understanding of gold mineralization in the belt. Work continued in 2003-04 to refine structural, geochronological and geochemical interpretations.

In the Bissett region of southeast Manitoba, mapping continued to provide the exploration community with practical constraints on the timing, distribution and structural setting of orogenic lode-gold deposits in the Rice Lake belt. The mapping led to the discovery of several occurrences of distinctive veins whose mineralogy, paragenesis and setting are closely analogous to those hosting spectacular high-grade gold mineralization in the Red Lake mine in Ontario, underscoring the exploration potential of the Rice Lake belt.

In the northern Superior Province, geological mapping and structural analysis have significantly upgraded the geological understanding of the Sharpe Lake area. This area contains a 35 km long exposed portion of the Stull Lake–Wunnummin Fault Zone, a major gold metallogenic province in the northern Superior Province. Based on field investigations in 2003 it is apparent that the gold potential of the zone is not limited to the presently explored Stull Lake to Monument Bay–Twin Lakes area.



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Massive sulphide deposit documentation in the Snow Lake area included the completion of a collection of reference samples for volcanogenic massive sulphide mines. The establishment of this reference collection of ores, rocks and data from each mine in the district will provide a valuable archive and reference for future work on the metallogenesis of the region.

Work by the MGS to determine the residual mineral potential in the Ruttan and Lynn Lake areas utilized drillcore stored in the provincial core-storage facility at Lynn Lake. The rationale for the work is the observation that geochemical anomalies in conductors or favourable strata that contain only low or negligible metal values can indicate proximity to otherwise blind massive sulphide deposits. This database can be utilized by property holders to reevaluate the mineral potential of properties in the Lynn Lake area with low metal values.

Recent discoveries of platinum group elements (PGE) have been made within and in the vicinity of gabbroic bodies intruded into mafic volcanic rocks in the Flin Flon greenstone belt. In southeastern Manitoba, the Mayville intrusion (located in the northern flank of the Bird River greenstone belt) is also a proven repository of PGE with characteristics similar to other intrusions with 'contact-type' PGE mineralization. Work in 2003 continued to advance our understanding of PGE environments in Manitoba.

A scoping study for hydrothermal iron-oxide copper-gold (IOCG- or Olympic Dam-type) deposits was initiated in 2002 by researchers at the University of Brandon, who successfully identified a large REE-rich carbonatite complex at Eden Lake. Follow-up work in 2003 revealed a system of high-grade but narrow REE-Y-U-Th veins. In 2003, work also focused on a unique style of mineralization that is abundant in the Kisseynew Domain, and may be related to IOCG-type deposits. This unique style of iron-sulphide copper-graphite mineralization occurs in relative abundance along the northern margins of the Kisseynew. These essentially unexplored deposits are significant because the mineralization has a magmatic-hydrothermal origin, similar to some types of IOCG deposits, and is strongly enriched in copper, graphite and silver.

A preliminary investigation of analytical data from twigs, sphagnum, peat-bog material, lake-bottom sediment and underlying clay beneath a bog at Reed Lake in the Flin Flon Belt demonstrates significant variations in the distribution of metals within several of the media. The available data suggest that both the top and basal portions of the bog material can be used to evaluate electromagnetic conductors prior to undertaking a drill program.

Soil and spruce-bark samples were collected along transects across the surface expression of the McBride Lake zinc-rich massive sulphide deposit and the gold-bearing Rainbow Zone at the MacLellan mine, in Lynn Lake. These studies are being undertaken to investigate the applicability of using the rare earth elements in discriminating geophysical anomalies related to barren mineralization from those associated with economic mineral deposits. The application of this technique may result in the identification of new deposits in the Lynn Lake area.

Preliminary studies of stream-derived kimberlite indicator minerals (KIM) in the Porcupine Hills of west-central Manitoba, released in 2001 and 2002, confirmed that the north slope of the Porcupine Hills contains anomalous quantities of KIM relative to other localities along the Manitoba Escarpment. Examination of aeromagnetic maps north of the Porcupine Hills has revealed the presence of a cluster of magnetic anomalies near Grassy Bay on Red Deer Lake that bear a striking resemblance, in relative magnitude and shape, to the documented aeromagnetic signatures of the Fort à la Corne kimberlites in Saskatchewan.

### **3. Promoting effective land use and resource management**

The Manitoba Geological Survey conducts a number of activities related to sound land-use management: 1) provision of mineral-resource assessments in candidate sites under the Protected Areas Initiative; 2) identification of potential geological hazards (shoreline erosion, neotectonics, landslides); 3) review of land-use planning submissions; 4) examination of applications for surface use of crown land to ensure that access to mineral occurrences is not adversely affected; and 5) collaborative programs with Manitoba Conservation, Manitoba Hydro and the GSC to evaluate geological hazards and potential impacts on development.

In order to more fully document the distribution of karst in the vicinity of the proposed Manitoba Lowlands national park, MGS conducted office inventories of karst features in the Honeymoon Lake area, in and

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around the town of Grand Rapids, and in the Devils Lake area, all of which lie east of the TNB. Field investigations of karst features were conducted in a remote area south of The Pas Moraine, along the Grand Rapids–Vermillion River hydro line. All these investigations confirmed the presence of near-surface bedrock and karst in areas where there is no conflict with mineral-exploration potential.

The MGS conducted diamond drilling through the Paleozoic rocks at Churchill in collaboration with researchers from the Manitoba Museum and the University of Manitoba. The Upper Ordovician and Lower Silurian sedimentary rocks at Churchill were deposited in a unique shallow-marine setting around a tropical archipelago, the islands of which were formed by ridges of Proterozoic Churchill Quartzite. The comprehensive synthesis of paleoenvironments at several unique fossil sites should encourage the development of new attractions that will benefit Churchill's emerging ecotourism industry.

The use of exposed Precambrian and Paleozoic bedrock as an aggregate source in the Churchill area will likely expand in the future as the depletion of favourable sand and gravel resources continues and the need to preserve undisturbed habitat for ecotourism intensifies. During 2000 and 2003, a few weeks were spent near Churchill collecting samples of the Proterozoic Churchill Quartzite, in order to assess its potential as a source of silica and to follow up on earlier reports of metallic mineralization. Trace-element analyses of both the Churchill Quartzite and Paleozoic dolomite indicate that they are barren of economic mineralization. An attempt is being made to recover a high-purity silica source from a crushed composite Churchill Quartzite sample through selective screening, washing and sorting.

#### **4. Evaluation of environmental impacts and geohazards**

Surficial and 3-D geological mapping are required for effective land-use planning, as well as for hydrocarbon, groundwater and industrial-mineral development. In 2003, progress was made on the production of a seamless, digital, 1:250 000-scale compilation of surficial geology for all of Manitoba.

Three-dimensional geological mapping of the Phanerozoic succession in southern Manitoba, south of latitude 55°N and west of longitude 95°W, is being completed as a successor activity to the Prairie component of the National Geoscience Mapping Program (NATMAP). The 3-D model for the Winnipeg-area NATMAP has been used to model groundwater flow across the Winnipeg region and to assess climate-change scenarios with respect to impacts on groundwater systems. The 3-D model has also attracted participation in a proposal under *Canada's Climate Change Impacts and Adaptation* entitled 'Vulnerability of the Assiniboine Delta Aquifer under Climate Change'.

A new study (Ph.D. at the University of Arizona) was begun, as a successor project to the Red River Flood Program, to document the frequency, severity and causes of extreme droughts and low flows in the Winnipeg River basin.

#### **5. Development of products that respond to clients' increasing needs for digital information**

The MGS continues to develop new projects and features for the Internet Map Server (IMS). The legend interface is being redesigned to make map projects clearer and easier to use. A new IMS project portraying data from the Protected Areas Initiative is currently under development.

In order to provide geoscience support to the diamond exploration effort in Manitoba, MGS has compiled all geological data pertinent to kimberlites in Manitoba. Compilation of existing data from a number of surveys and agencies into a single database will provide explorationists with a comprehensive view of public-sector survey results. Coupled with ongoing analysis of till stratigraphy in the Hudson Bay Lowland, these data will provide important new information relating to diamond potential in Manitoba.

The Manitoba Stratigraphic Database (MSD) contains all subsurface Phanerozoic stratigraphic and core-storage data for all Phanerozoic wells in Manitoba. This year, wells with licence numbers 1 to 1100 have had the formation tops completely updated with all available data. This is in addition to the 1271 stratigraphic and mineral-exploration wells that have already been completed. It is anticipated that the database will be completely updated by mid-2004.

Considerable time was devoted in 2003-04 to large compilation projects. Conversion of more than 60 archival 1:250 000 and 1:100 000 Quaternary geology maps to digital format was completed, and the process of edge matching the maps into a seamless 1:250 000 digital surficial geology map of Manitoba is underway. This base will be used to derive a new version of the 1:1 000 000 *Quaternary Geology of Manitoba* map. The Bedrock Geology Compilation Map Series (1:250 000) program focused on provincial-

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scale compilation. No new maps were released this year, but 14 existing maps were edge-matched in preparation for production of a seamless 1:250 000 geological base for Manitoba. This base will be used as the background map for all Internet Map Server presentations and will be simplified for a new version of the 1:1 000 000 *Geology of Manitoba*.

Substantial advances have been made under the Canadian Geoscience Knowledge Network's Metadata Initiative. Preparation of metadata for all provincial publications, as well as recent external publications, has been completed. Users of this on-line catalogue will be able to query, discover and in most cases acquire geoscience publications and maps to assist in the exploration process.

Information production and dissemination activities (Client Services) included the web publishing of minerals-related content for the departmental web site as well as the production and distribution of MGS publications and promotional materials (see Appendix D). These publications, as well as other minerals-related information resources, were disseminated through the Mineral Resources Library, Publication Sales and the Mineral Resources Division web site.

Client Services published 28 geoscientific reports and maps for the Manitoba Geological Survey (MGS) and updated the *Manitoba Mining* promotional brochure and CD. Digitizing of out-of-print geoscientific reports and maps was initiated to ensure long-term archival and reproduction capabilities and to improve client service by providing free web site downloads of the digitized publications.

Client Services also published several new sections to the Mineral Resources Division web site including the *National Diamond Strategy*, the *Manitoba Diamond Exploration Strategy* and the *Manitoba Mining Advantage*, a web version of the *Manitoba Mining* promotional brochure.

The Mineral Resources Library worked in collaboration with Saskatchewan to create a new database for a federally funded Targeted Geoscience Initiative, on the 'Williston Basin Architecture and Hydrocarbon Potential'. The library experienced increased demands for the majority of services with the most significant being a 230% increase in circulation, attributed to services in support of the Canadian Geoscience Knowledge Network's metadata initiative. The library and Publication Sales worked with Computer Services to provide secure credit card transaction capabilities for the purchasing of MGS publications on-line. The new E-store opened for business in November of 2003.

## **6. Collaboration with industry, Federal, university and other provincial agencies**

Partnerships and collaborative projects continue to expand the ability of MGS to provide multifaceted, effective geoscience programming in Manitoba. The federal government, other provincial governments, the mineral industry and several universities are currently involved in collaborative projects in Manitoba. These projects generated approximately \$1.5 million toward geoscience funding in Manitoba for 2003–2004. In 2003-04, MGS was involved in 38 individual partnered programs, many of which mentor the next generation of geoscientists. The range of university studies (from dendrochronology to isotope geochemistry) is being conducted by two Post Doctoral Fellows, four Ph.D. candidates, seven M.Sc. candidates and one B.Sc. candidate, from five Canadian and two American universities.

The federal government's Targeted Geoscience Initiative (TGI) was extended for an additional two years, to March 2005. This initiative will provide \$5 million per year to enhance geoscience programming across Canada. In Manitoba, two TGI projects that were proposed by MGS and approved by the Geological Survey of Canada (GSC) are:

- Trans-Hudson–Superior Margin Metallogene (with Saskatchewan, Ontario and Quebec): \$800 000 in TGI funding over two years. Project components in Manitoba include a federally funded aeromagnetic survey, federally funded remotely sensed imagery, and multi-agency bedrock mapping, geochronology and tracer isotope work, and structural geology studies. In addition to the federal funding, the Manitoba Geological Survey and partners (Manitoba Hydro, universities of Waterloo and Alberta) have committed \$1.5 million to bedrock investigations in the project area over the next three years.
- Williston Basin Architecture and Hydrocarbon Potential (with Saskatchewan): \$720 000 in TGI funding over two years. Project components include geoscience knowledge inventory, regional mapping (subsurface), geophysical investigations, regional hydrogeology, remotely sensed imagery, hydrocarbon assessment and 3-D geological modelling.

## **7. Providing minerals industry information through outreach activities**

Client Services provides information production and dissemination, outreach, and communications

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services for the Mineral Resources Division to assist in the promotion of exploration and mining investment opportunities and to increase public awareness of the benefits and opportunities of sustainable mineral development in the province.

Major outreach activities included mineral education initiatives such as the Manitoba Mining and Minerals Convention Schools Program held at the Winnipeg Convention Centre and Provincial Mining Week (PMW) at The Forks. Hands-on, interactive activities complemented the earth sciences curriculum and helped increase public awareness of Manitoba's mineral resources and mining industry. The free activities drew more than 2,700 visitors from the general public and the school tours program.

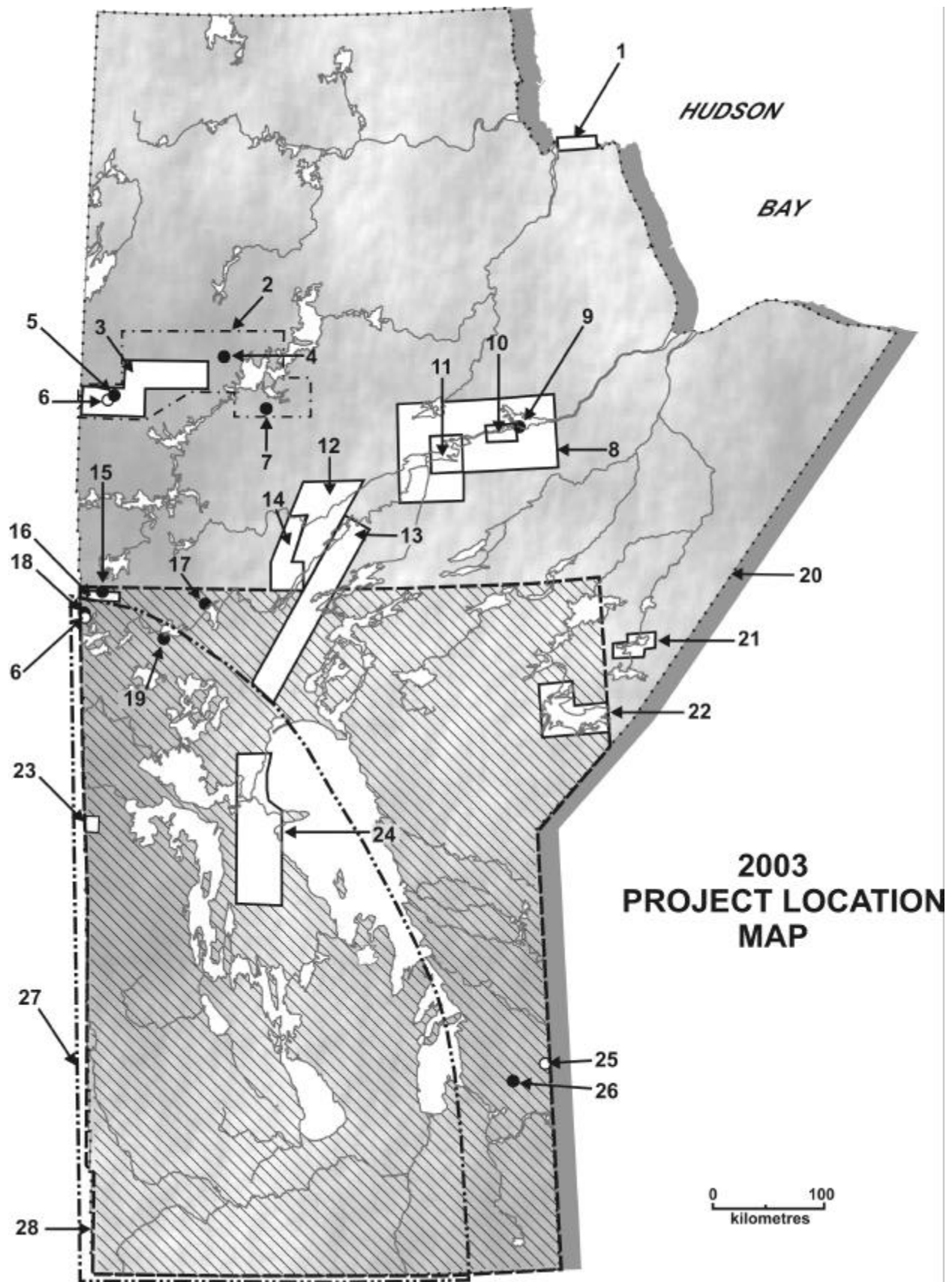
In June 2003, a community-based pilot Prospector Training Program was held for participants from the Sagkeeng First Nation. The program, a special Outreach initiative, was developed in collaboration with Sagkeeng and delivered by Mineral Resources Division staff and other provincial government and industry experts. Ten students graduated from the four-week course with a Manitoba Prospectors Licence and Blasting Certificate. The pilot project reflected the goals and objectives of the Manitoba Minerals Guideline developed in 1998 by First Nations, Métis Nations, the Northern Association of Community Councils, the Manitoba minerals industry and the Province of Manitoba. The goal of the Guideline is to foster relationships and economic development opportunities among those involved in or affected by mineral activities in Manitoba.

Resulting from the success of the pilot Prospector Training Program, a new Outreach initiative developed in collaboration with Keewatin Community College was undertaken to deliver community-based programming to service the north. The training will be modularized to develop basic field skills that are transferable across sectors, including training focused specifically on mineral exploration and prospecting.

### **Regional Offices**

The Flin Flon and Thompson regional offices provide regulatory and technical assistance to the mineral-exploration and mining communities in the Flin Flon–Snow Lake region. In Flin Flon, these activities include recording new mineral claims, maintaining an up-to-date library of claim and land-status maps for the Province of Manitoba, and answering claim-status inquiries and accepting assessment-work submissions. The Thompson Regional Geologist responds to a range of inquiries, including regional geology, potential of mineral properties and mineral identifications.

Manitoba's Mineral Resources Division has been storing Precambrian drillcore, obtained primarily from exploration drilling, since the early 1970s. A substantial repository of drillcore is now stored at five locations throughout the province. In 2003, work continued on updating drillcore inventories at all the northern facilities, especially the Centennial site near Flin Flon. The retrieval of surface exploration drillholes for the Fox mine deposit has been completed.



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**Map Legend****Location of Projects 2003/2004**

- 1 - Metallic and silica resource potential of the Churchill area  
- Paleozoic drill core from the Churchill area
- 2 Determining residual mineral potential in drillcore from Ruttan and Lynn Lake areas
- 3 Tectonic evolution and gold metallogeny of the Lynn Lake greenstone belt
- 4 Rare earth element studies of soils and vegetation over the McBride Lake massive sulphide deposit and the MacLellan mine Rainbow gold zone, Lynn Lake area
- 5 Trace-element signatures of massive sulphides from the Fox mine
- 6 Manitoba's Precambrian Drillcore Libraries Program
- 7 Vectoring volcanogenic massive sulphide deposits using rare earth elements and other pathfinder elements at the Ruttan mine
- 8 Superior margin programs in the lower Nelson River region
- 9 Bedrock mapping in the Gull Rapids area
- 10 Split Lake Block: new geological constraints from the Birthday to Gull Rapids corridor of the lower Nelson River
- 11 Structural geology of the Assean Lake and Aiken River deformation zones
- 12 Mineral modes of gneiss along the Thompson Nickel Belt-Kisseynew Domain boundary
- 13 Thompson Nickel Belt Project
- 14 Field relations, U-Pb zircon ages and Nd model ages of granitoid intrusions along the Thompson Nickel Belt-Kisseynew Domain boundary, Setting Lake area
- 15 Platinum group element investigations in the Flin Flon greenstone belt: Mikanagan Lake and Tartan Lake gabbroic complexes
- 16 Geological investigations in the northern Flin Flon belt
- 17 Volcanogenic massive sulphide deposit documentation in the Snow Lake area
- 18 Activities of the Manitoba Geological Survey's Flin Flon Regional office
- 19 Geochemical studies of dwarf birch twigs, peat, bog iron and clay at Reed Lake
- 20 The search for diamonds in Manitoba
- 21 Preliminary results and economic significance of geological mapping and structural analysis at Sharpe Lake, northern Superior Province
- 22 New insights into supracrustal assemblages and regional correlations for the Island Lake greenstone belt, northwestern Superior Province
- 23 Grassy Bay aeromagnetic-anomaly cluster: potential source for the Porcupine Hills kimberlite indicator minerals in west-central Manitoba
- 24 Preliminary karst inventory of areas north and south of Grand Rapids
- 25 Geology and structure of the Garner Lake area, southeast Rice Lake greenstone belt
- 26 Platinum group element investigations in the Mayville igneous complex
- 27 Manitoba Stratigraphic Database
- 28 Quaternary mapping progress in southern Manitoba Phanerozoic terrane: 2-D and 3-D

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## MINERALS POLICY AND BUSINESS DEVELOPMENT

The Minerals Policy and Business Development section is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities organizing and staging of the annual Mines and Minerals Convention and administering the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP) and the Manitoba Mineral Exploration Tax Credit (MMETC). The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Industry, Economic Development and Mines and all affected government departments.

On a global scale, over the last year, the mining industry has regained some of its momentum due to increased commodity prices coupled with the ability for junior explorers to raise exploration funds. Exploration levels in the province continue to increase and Manitoba continues to generate positive news. After gaining international recognition in the 1999 Fraser Institute survey of mining companies as 'one of the best places in the world to invest in exploration and mining', frontier exploration, particularly for gold, nickel and diamonds, has dramatically expanded. The search for diamonds continues to generate exploration activity in northeast Manitoba.

In addition, Hudson Bay Mining and Smelting and Inco continue major investments to ensure their operations remain in Manitoba until at least 2016.

The section continued to build relationships with exploration and mining companies by promoting the advantages of investing in Manitoba. The benefits of these relationships are not always realized immediately. Mineral exploration and mine development are long-term endeavours with inherent risks. Over the years, however, all Manitobans have benefited from a healthy minerals sector that has grown to be the second largest primary resource industry in Manitoba, with a value of nearly \$1 billion annually.

The responsibilities of the Minerals Policy and Business Development section are implemented on a wide variety of fronts that include strategic business development including minerals policy, focussed client service, mining community development and administration of the minerals incentives programs.

**Strategic Business Development** - To effectively promote Manitoba's mineral investment advantages, it is important to understand industry trends and needs. Where possible, it is also necessary to contribute to the policies and initiatives that can impact mineral investment in a positive and sustainable way. Section representatives participated on various committees such the Manitoba Mining Tax Committee, Intergovernmental Working Group subcommittees on exploration tax credits, resource tax reform and aboriginal participation in mining, and the Protected Areas Mineral Liaison Committee.

Competition for the exploration dollar has become international in scope and if we are to maintain a healthy and sustainable mining industry in the province it is critical to elevate the profile of Manitoba's mineral endowment and positive business environment. Section personnel conducted focused marketing initiatives and attended major industry conferences to attract exploration dollars to the province. The impact of Manitoba's policy climate in attracting mineral investment was recognized again in the 2004 Fraser Institute survey of mining companies, in which the province placed in the top 10 per cent. Survey results represent the opinions of exploration managers in mining companies operating around the world.

In addition, the Department worked collaboratively with local prospectors groups and Manitoba's mining communities to promote mineral and business opportunities in and around those communities through a Team Manitoba approach.

**Conventions and Trade Shows** - Investment opportunities were promoted through trade show displays and direct marketing efforts at the following major mining and exploration events:

- Prospectors and Developers Association of Canada (PDAC) - Toronto (9,000 in attendance)
- Mineral Exploration Roundup - Vancouver (3,500 in attendance)
- New York Gold Conference, New York

**Team Manitoba** - a collaborative effort between Manitoba's mining communities, mineral property holders and staff from Industry, Economic Development and Mines, was also successful in promoting mineral investment. Working together, the Team, including mayors from Manitoba's mining communities,

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provided a unified front to potential investors at the Prospectors and Developers Association of Canada Conference and at the Manitoba Mining and Minerals Convention.

**Client Service** - Minerals Policy and Business Development, in co-operation with other Branches and government departments, provided advice and direction to help new mining and exploration companies adjust to operating in a new jurisdiction or existing companies embarking on new ventures. This client assistance was provided in both an interdepartmental team approach and through issue driven individual service.

**Community Development** - activities undertaken by the section include participating in and co-ordinating various initiatives related to mine closure, including facilitating community adjustment and community economic development. The purpose of these activities is to help ameliorate the effects of mine closure on, and contribute to, the long-term viability of mining communities.

The department, with Intergovernmental Affairs and Labour took the lead in organizing an interdepartmental working group to deal with mine closure at Lynn Lake and Leaf Rapids. This core group grew into a government Steering Committee that is presently addressing both local and regional issues in the Lynn Lake – Leaf Rapids area. In addition to increased government geological programming in this region, the government is providing funding assistance from the Mining Community Reserve to help each community deal with the effects of mine closure and plan for future economic development.

**Manitoba Mining and Minerals Convention** - the annual Manitoba Mining and Minerals Convention hosted over 750 industry participants. The convention provided a venue for stakeholders to acquire the latest government geological information releases, interact with the exploration and mining services sector and discover new business opportunities. The convention theme, “Discoveries Start Here” reflected the mining sector’s vibrant presence in Manitoba as well as Manitoba’s enormous untapped mineral potential, and the many opportunities that exist for further exploration in our vast, geologically diverse province. In 2003, the convention hosted a total of 52 booths and 27 presentations. In addition, 34 mineral property booths and 41 geological posters were featured. The Manitoba Mining and Minerals Convention 2004 will be held November 18, 19 and 20 at the Winnipeg Convention Centre.

**Exploration Incentives** - The continuation of mineral incentive programs such as the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP) and the Manitoba Mineral Exploration Tax Credit (MMETC) sends a positive message to industry that Manitoba is serious about attracting investment and supporting industry in times of heightened competition for the global exploration dollar. All programs were administered by the Minerals Policy and Business Development section (see page 45 for more detailed information).

## **MINERAL INDUSTRY SUPPORT PROGRAMS**

The Mineral Industry Support Programs are delivered under Manitoba Geological Survey, however, the financial information is reported under Industry Development – Financial Services.

### **Mineral Exploration Assistance Program**

The Mineral Exploration Assistance Program (MEAP) provides financial assistance to eligible companies or individuals who undertake mineral exploration in Manitoba. The program, established in the fall of 1995, was designed to increase exploration and stimulate activities that may lead to the development of new mines. Companies/individuals may qualify for 25% - 35% of eligible exploration expenditures up to a maximum of \$400,000.00 per recipient, per fiscal year; depending on the area of exploration. A higher percentage of assistance is offered for projects undertaken in the Northern Superior region of the province, due to remoteness and limited infrastructure. In response to difficult times brought on by the downturn in the mineral industry, MEAP has extended the higher percentage of assistance on eligible



expenditures to include the Lynn Lake/Leaf Rapids and Bissett areas. Two offerings are held per fiscal year.

Companies with approved projects under the April 2003 offering had until October 31, 2003 to complete their work, and approved projects under the November, 2003 offering had until March 31, 2004 to complete their work. Sixty-eight of the original 92 approved projects were completed.

### **Reviews, Audits and Inspections**

To ensure accountability and integrity of the Program, the Department continued to conduct site inspections following guidelines developed with the Provincial Internal Audit office. In the 2003/2004 fiscal year, Industry, Economic Development and Mines and the Provincial Internal Audit office decided to forego internal audits of the program for one year due to other priorities within Internal Audit and past history of administration of the program. Thirteen site inspections for projects representing \$435,959.29 or 17.5% of the allocated assistance have been completed.

### **Program Highlights from October 1995 to March 31, 2004**

- 118 companies have participated under MEAP representing 416 exploration projects.
- 81 of the 118 companies are considered new to Manitoba including seven joint venture partners. Of the 118 active companies, 20 are major exploration companies and 98 are junior companies (note: a company is considered a major exploration company if its market capitalization is greater than \$100 million).
- \$17.8 million of assistance has been issued to 416 completed projects.
- \$96.2 million in exploration expenses have been reported.
- Reported exploration expenditures under the Program indicate every \$1 million in assistance paid generates \$5.4 million in exploration expenditures.

### **Mineral Exploration Assistance Program 2003 Status**

Offering	Applications Received	Approved Applications	Proposed Exploration \$ in 000's	Assistance \$ Allocated in 000's	Projects Completed	Actual Exploration \$ in 000's	Assistance \$ Paid
03-04-01	37	37	17,118.6	1,100.0	23	7,646.8	832.9
03-11-03	56	55	22,512.5	1,400.0	45	17,314.9	1,177.2
<b>TOTAL</b>	<b>93</b>	<b>92</b>	<b>39,631.1</b>	<b>2,500.0</b>	<b>68</b>	<b>24,961.7</b>	<b>2,010.1</b>

**Note:** Projects approved under the November 2003 offering have until June 18, 2004 to file final reports and make application for final payment

### **Results of Assistance by General Region of Exploration for 2003/2004**

	Projects	Exploration \$ in 000's	Assistance \$ in 000's
Northern Superior	26 (28.3%)	\$10,723.9 (43.0%)	\$582.1 (29.0%)
Flin Flon/Snow Lake	19 (20.7%)	\$4,920.8 (19.7%)	\$468.5 (23.3%)
Lynn Lake/Leaf Rapids	6 (6.5%)	\$1,702.4 (6.8%)	\$183.9 (9.1%)
Southeastern Manitoba	28 (30.4%)	\$ 4,317.5 (17.3%)	\$491.5 (24.5%)
South Central Manitoba	1 (1.1%)	\$80.5 (0.3%)	\$5.4 (0.3%)
Thompson Nickel Belt & Extension	12 (13.0%)	\$3,216.6 (12.9%)	\$278.7 (13.9%)
<b>TOTAL</b>	<b>92</b>	<b>\$24,961.7</b>	<b>\$2,010.1</b>

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### Manitoba Potash Project

As partners in the Manitoba Potash Corporation, Potamine Potash Mining of Canada Inc. and the Province of Manitoba hold the development rights to known reserves in the Russell-Binscarth area of southwest Manitoba. The Manitoba Potash Project has sufficient mineable reserves to sustain a world class potash mining and processing operation for over 25 years. Potamine is controlled by Entreprise Minière et Chimique (EMC) of France. The EMC Group is one of the world's leading potash trading companies with extensive experience in the production and marketing of potash.

During the fiscal year, the department continued its efforts to market Manitoba's 49% interest in the Manitoba Potash Project by seeking out potential investors.

### Acid Rain Abatement Program - Flin Flon

This program provides financial assistance to Hudson Bay Mining and Smelting Co., Limited for the construction of environmental improvements to the metallurgical plant at Flin Flon. Modernization of the plant resulted in containment of sulphur dioxide emissions within prescribed limits.

The department continued to monitor exploration commitments by HBM&S and administered the ancillary loan agreement between Manitoba and Saskatchewan.

### Manitoba Prospectors Assistance Program

The Manitoba Prospectors Assistance Program (MPAP) offers grants to prospectors conducting exploration on their own Manitoba mineral properties or open Crown land. The Program is targeted at increasing mineral exploration in Manitoba to help replenish declining ore reserves. The Program is funded at \$125,000 per year and allows individual prospectors to qualify for up to 50% of their prospecting expenditures incurred up to \$7,500 per prospector per year. The program also provides 80% of the cost of one return charter flight or \$1,500.00 per year, whichever is less, for projects undertaken in more remote areas of the Province. Maximum assistance of \$9,000.00 is available per applicant per year.

In 2003/04 the program received 30 applications for grants; 29 prospecting projects were approved under the Program with 15 completed as of March 31, 2003. The total amount of Program funds dispersed for 2003/04 was \$72,657.84.

### 10-3(a) Manitoba Geological Survey

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	3,585.7	65.10	3,591.7	(6.0)	
Total Other Expenditures	1,685.4		1,725.6	(40.2)	
<b>Total Expenditures</b>	<b>55,271.1</b>	<b>65.10</b>	<b>5,317.3</b>	<b>(46.2)</b>	

**Note:** Costs related to the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP), Manitoba Potash Project and the Acid Rain Abatement Program are reflected under Industry Development – Financial Services.

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## **MINES**

### **OBJECTIVES**

The Mines Branch administers legislation governing the disposition of mineral rights (permits, claims and leases), exploration, development, and production of the province's non-fuel mineral resources and rehabilitation of mines and quarries. The branch comprises three sections; Mining Recording, Mining Engineering and Inspection, and Assessment.

### **ACTIVITIES/RESULTS**

Other activities performed by Mines Branch staff included the continuing compilation of an inventory of the province's aggregate resources and administration of provincial land-use policies that deal with the conservation of aggregate resources. The Branch continued its representation on the Science and Technology Committee (sub-committee of IGWG) and the Federal/Provincial Technical Committee on Mineral Statistics. Branch staff participated in a number of technical seminars and conferences.

In 2003/2004 the branch entered the 12<sup>th</sup> year of a substantial program for the rehabilitation of aggregate pits and quarries throughout the province. Under the orphan mine site program work was completed for items related to safety and environmental issues at Sherridon, Gods Lake and Baker Patton. Snow Lake Arsenopyrite Stockpile Study conducted by the U of M was published in March 2004. In Lynn Lake, Dykes 4 and 5 were stabilized and column tests on Permeable Reactive Barriers were conducted at the University of Waterloo. Emergency rehab work was carried out at Central Manitoba Mine and Gunnar Mines. The total expenditure for FY 2003/04 was \$250 K against a budget of \$250 K. In accordance with the Mine Closure Regulation, owners/operator of the province's operating and inactive mines submitted closure plans and proposals for review and comments.

#### **Mining Recording Section**

Mining Recording offices are located in Winnipeg and Flin Flon with a regional geological office located in Thompson providing limited mining recording services.

Mining Recording Offices maintain up-to-date records of mineral dispositions and leases and all legal transactions that relate to mineral dispositions and leases as required by legislation. The general public can access the computer data base on mining claims and permits through terminals located in each of the offices.

The Mining Recording Section processes applications for mineral dispositions and leases, monitors and inspects the activities of disposition and lease holders for compliance with requirements of The Mines and Minerals Act and Regulations, and collects fees, rentals, royalties, rehabilitation levies, taxes and cash security deposits payable under the Regulations. The total revenue collected by the Section during the fiscal year 2003/2004 was \$2,629,474 and the rehabilitation levy collected, including interest, on the removal of aggregate material was \$1,537,536 for the same period.

During the calendar year 2003, 941 mining claims and 35 mineral exploration licenses were recorded covering a total of 871,992 hectares. Concurrently, 38 quarry mineral leases, 758 casual quarry permits and 792 registration certificates for private pits and quarries were also issued during the same period. Details of the types of mineral dispositions and leases issued and in good standing in 2003 are shown on the following page.

**MINERAL DISPOSITIONS ISSUED EACH CALENDAR YEAR 2000 - 2003**

	2000		2001		2002		2003	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
<b>Mining</b>								
Mining Claims	747	151,445	522	102,684	784	167,978	941	203,542
Mining Exploration Permits *	40	1,400,714	45	1,586,161	21	438,210	0	-
Special Exploration Permits *	5	299,180	9	363,759	2	58,004	0	-
Mineral Exploration Licenses	-	-	-	-	7	271,355	35	668,450
<b>Quarrying</b>								
Leases	58	4,108	69	899	27	830	38	1,110
Exploration Permits	1	126	2	1,093	2	79	0	-
Casual Quarry Permits	782	-	796	0	751	-	758	-
<b>Peat</b>								
Leases	17	2,773	-	0	-	-	1	264
<b>Private Aggregate Registration Certificates</b>	842	-	803	0	776	-	792	-

\* Exploration permits have been changed to exploration licenses with the Act Amendments proclaimed in November 2002.

**MINERAL DISPOSITIONS IN GOOD STANDING AT CALENDAR YEAR END 2000-2003**

	2000		2001		2002		2003	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
<b>Mining</b>								
Mining Claims	5,253	742,749	5,243	746,767	5,032	738,730	5130	795,228
Order-In-Council Leases	3,653	120,562	3,653	120,562	3,653	120,562	3,653	120,562
Mineral Exploration Licenses	17	581,806	41	1,468,098	40	1,544,471	60	1,588,678
Special Permits	21	1,142,526	24	1,300,013	4	181,032	3	37,222
Mineral leases	268	31,705	268	31,705	263	36,424	262	30,637
<b>Potash</b>								
Leases	1	5,787	1	5,787	1	5,787	1	5,787
<b>Quarrying</b>								
Leases	769	38,401	821	38,658	822	38,855	845	39,082
Exploration Permits	1	126	3	1,199	5	1,212	5	709
<b>Peat</b>								
Leases	142	22,039	140	21,450	139	21,381	141	21,824
Exploration Permits	-	-	-	-	-	-	-	-
<b>TOTAL</b>	10,125	2,685,701	10,194	3,734,239	9,959	2,688,454	10,100	2,639,729

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## Mining Engineering and Inspection

The primary purpose of the Mining Engineering and Inspection Section is to facilitate and encourage sound exploration, mining and rehabilitation practices in the province consistent with the principles of sustainable development and in compliance with The Mines and Minerals Act. It also provides land management and advisory services in support of provincial legislative and regulatory land use and resource management initiatives. G.I.S. services are provided to industry to assist in the resolution of environmental and land use conflicts, dissemination of non-confidential assessment reports, land use and tenure information.

Staff monitor mining activity in Manitoba to ensure compliance with requirements under The Mines and Minerals Act including licenses, registrations, permits, leases, closure plan submissions, royalty/levy charges on production, and environmental operation standards. In 2003/2004 inspection staff conducted field inspections to ensure mining compliance at quarry lease and casual quarry permit locations, private pit/quarry operations and site rehabilitation projects.

On July 18, 2000, Treasury Board approved-in-principle a four-year \$1.0 million Broad allocation (\$250,000.00 annually) from the Sustainable Development Innovations Fund to the former Department of Industry, Trade and Mines, Mines Branch, for an Orphan Mine Site Program to rehabilitate Crown owned orphan mine sites in Manitoba. The four-year work plan included rehabilitation at Sherridon, Gods Lake, Baker Paton, Snow Lake and East Lynn Lake tailings area.

<b>Project Location</b>	<b>Total SDIF Approval (\$)</b>	<b>Expenditure for 2000-03</b>	<b>Expenditure for 2003/04</b>	<b>Total Expenditure up to March 31, 2004</b>
Sherridon	100,000	\$90,779.93	\$2,753.21	\$93,533.14
Gods Lake	250,000	\$222,593.04	\$36,371.22	\$258,964.26
Snow Lake	20,000	\$54,430.33	nil	\$54,430.33
Lynn Lake	480,000	\$38,502.51	\$159,300.00	\$240,802.51
* Emergency Work			\$43,000	\$43,000
Baker Paton	150,000	\$193,529.56	\$8,539.93	\$202,069.49
<b>Total</b>	<b>1.0 M</b>	<b>\$599,835.37</b>	<b>\$249,964.36</b>	<b>\$849,799.73</b>

\* Treasury Board approved to re-allocate funding from Lynn Lake towards emergency work.

### Sherridon

A 12m x 15m perimeter fence was installed around the old shaft area. All corner posts were braced and secured. All brush removed from either side of the fence and debris disposed of in the designated dump.

### Gods Lake

A final site inspection was carried out in June 2003 and the contractor was asked to correct the deficiencies such as leveling of the broken concrete at the mill site, leveling of the precast slabs at No. 4, to tighten the holding down bolts on the shaft caps and to supply with documentation regarding the appropriate disposal of the asbestos lined boiler. All the deficiencies have been corrected and the project was completed in the latter part of 2004.

### Snow Lake

A "Mineralization & Geochemical Study of Arsenic in Alteration Products of Sulphide-Rich, Arsenopyrite-Bearing Mine Waste" in Snow Lake was conducted by U of M and the final report was published in March 2004.

The objectives of the study are:

1. To assess the process and solubility controls of arsenic release in Arsenopyrite Stockpile pore water and drainage water.
2. To characterize the extent of alteration of a high sulphide, refractory arsenopyrite mine wastes after 40 years of supergene weathering.
3. To elucidate the geochemistry of arsenic in secondary alteration products of arsenopyrite.

### Lynn Lake

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### Dyke Stabilization

- UMA Engineering Consultants completed the specifications for Dykes Nos. 4 and 5 stabilization and replacement of Weirs “C” and “D”.
- Dykes 4 & 5 upgrading consists of placement of geotextile (7600 m<sup>2</sup>); granular rip-rap (4000 m<sup>3</sup>), granular filter material (5500 m<sup>3</sup>) and granular backfill material (7500 m<sup>3</sup>).
- Overflow channel and weir construction consists of replacement of Weir C in Dyke 4, Weir D in Dyke 5, placement of granular rip-rap (1500 m<sup>3</sup>), and geotextile (2000 m<sup>2</sup>).
- Weir demolition and culvert removal consists of weir demolition and removal of culvert. The work construction was completed at a cost of \$361 K by Smook Bros. of Thompson. The engineering design, supervision and inspection cost was \$118 K. As per the MOU between Viridian Inc. and Manitoba, the Province paid \$158.4 K to Viridian towards the project.

### Permeable Reactive Barriers (PRB)

Additional field investigations and laboratory studies at the University of Waterloo with respect to potential applications of PRB technology to treat acid run-off has been supported by the Branch. The preliminary results of column testing using “engineered water” look promising. The test work is now completed and the profile of the water quality is underway. The column test will be conducted using acid water from mine site. Based on the end results, a final decision will be taken.

### Emergency Rehab Work

#### A. Central Manitoba Mine (CMM)

Abandoned CMM is located 27 km southeast of Bissett in Nopoming Park. In July 2003 an open shaft was noted by the Claim Inspector. The shaft is only 50 m away from the local access road and is a potential threat to public safety. An engineered concrete cap was designed and Cyr Construction was awarded a contract to install a concrete cap and four danger signs. The rehab work was completed in January 2004 at a cost of \$16 K.

#### B. Gunnar Mine

Abandoned Gunnar Mine is located 35 km southeast of Bissett. In May 2003 local residents noticed an open shaft and informed the Branch inspection section. The open shaft is in a cottage tourism area and presents a danger to public safety. An engineered shaft cap was designed and Cyr Construction was awarded a contract to install a concrete cap. The rehab work was completed in June 2003 at a cost of \$27 K.

### Baker Patton

Baker Patton Mine is located approximately 35 km east of Flin Flon. The mine lies within ML59, and held in the name of Pinebay Mines Ltd. Acres Consultants were hired to develop the scope of work and to provide emergency services to rehabilitate the mine site. The primary scope of work is to remove about 5000 cubic yards of sulphide-bearing mine rock, to remove all the oxidized sediments from the creek bed and to revegetate the site. The project was completed in March 2004. All deleterious waste including scrap metal, tires and oil drums along the creek were removed and disposed of appropriately. The creek bed was scraped and all acid generating material from the creek bed and at the mine site (5000 m<sup>3</sup>) was hauled into the HBMS tailings compoundment area in Flin Flon. Fertilizer was spread, seeded and erosion control blankets were secured with pins. Dry waste wood from logging operation stored on the site was mulched and spread on top of the erosion control blankets to regenerate vegetation. Costs were 25% over the estimate due to a number of factors which included poor winter road conditions, increased engineering and site supervision and more stringent environmental requirements.

### General

Mines Branch staff participated on various interdepartmental technical review committees. Staff took part in judging the Provincial Mine Rescue Competition in Thompson.

Several mine closure plans for operating metal mines, inactive mines and for industrial mineral quarries were reviewed by Mines Branch staff and the closure plans were approved by the Director of Mines.

Ruttan Mine's mine closure plan was reviewed and approved by the Province. Mines Branch staff are working closely with HBMS environmental group, local First Nations, local council and the Steelworkers Union in implementing HBMS's mine closure commitments. To date, HBMS have spent approximately \$12 million and have carried out the major rehabilitation measures including removal of buildings, capping of shafts and ventilation raises, removal of headframes, and construction of diversion channels, dykes and dams to divert uncontaminated water away from the open pit.

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A program was initiated by Mines Branch to inspect all the known approximately 250 inactive/abandoned mines to establish Manitoba's liability.

The plat sheet digitization map project consists of a series of maps used by the industrial minerals sector and Mines Branch staff to maintain mineral disposition records and land use information. This project consists of approximately 1100 map sheets. All map sheets have been compiled. 80% of the maps are complete and are being used by the Recording staff and industry. The other 20% of the maps are being reviewed by staff. These new maps replace outdated sheets which required manual entries for updating land use constraints. The new digital product enables the use of current GIS technology to update land use information required by clients and staff to process various types of mineral dispositions.

The Mines and Minerals Act, proclaimed in 1992, introduced a program to address the rehabilitation of pits and aggregate quarries in the province. Aggregate producers pay an annual levy based on the tonnes that they've produced and this money is set aside in a fund to be used for pit and quarry rehabilitation. On the basis of aggregate production from private and Crown lands in 2003/2004 approximately \$1.5 million was contributed to this Quarry Rehabilitation Fund, with over 116 rehabilitation projects being completed at a cost of \$1.5 million. The total number of projects completed since 1992 comprise approximately 5800 hectares of land rehabilitated. All the work has been undertaken through private equipment rental agreements or tendered contracts with private operators, administered and monitored by branch inspection staff.

### **Sustainable Land Planning Services**

Manitoba has enacted several resource management acts to manage land and resources as well as improve the economy and protect the environment. The mineral resource/land management program facilitates mineral resource and land stewardship in the various provincial and municipal land and resource use management planning processes. Program objectives for resource stewardship are to help facilitate the provincial interest in natural resources, manage land, and accommodate environmental management. Program goals are directed at facilitating responsible mining and resource development, protecting the environment, minimizing land and resource use conflicts and providing high quality land and resource management planning and advisory services to planning authorities, industry and other land management stakeholders.

Program goals also include providing secretarial support to the Surface Rights Board and assisting Manitoba in the transition to sustainability. The implementation of the program are as follows:

#### Crown Land Planning

The management, classifying and policy development for Crown land in Agro-Manitoba is the responsibility of the Crown Land Classification Committee. Major activities of the Crown land management process include developing and implementing Crown land plans, developing Crown land codes and policy and supervising land use on Crown lands through an integrated management process. Other significant land management activities include evaluating Crown land sale and use proposals, providing technical advice and information on resource management activities and facilitating land designation under various resource management acts. Land management provides planning services related to:

- Crown land sales
- Crown land exchanges
- Crown land planning and development
- allocation of use
- integration of use
- protection, conservation and sustainability of provincial natural resources.

#### Municipal Planning

The Planning Act governs land use planning and development in Manitoba. The legislation provides municipalities and planning districts with the authority to a Development Plan and Zoning By-law. Land management is actively involved in providing the legislatively based land planning processes and stakeholders with technical products, advice and technical positions on land planning matters. Support services include reviewing policy and development proposals and ensuring that the province's non-renewable mineral resources are not sterilized by development, preparing mineral resource management

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technical reports and products that help facilitate mineral resource management, and providing professional planning advisory assistance to the subdivision review and conditional use processes. Other significant planning services include policy reviews of plans and zoning by-laws, public consultation and supporting planning appeal Boards. Land Management is responsible for the interpretation and application of Provincial Land Use Policy #9, MR 184/94.

#### Land Use Assessment

Land Management provides technical support and advice to many provincial legislative land use review and assessment processes. Land use proposals are assessed to ensure that the province's mineral resources are not sterilized by development and to ensure that land use conflicts are identified and mitigated. Land use proposals that are assessed are subdivision applications, Crown land sales, zoning and policy memorandum as well as Crown surface encumbrances with the view of documenting land use, tenure and environmental conflicts. This activity directly supports interdepartmental and intergovernmental planning and resource management activities. A total of 1093 land use proposals were assessed for potential land use conflicts to ensure that the Province's mineral resources were not sterilized by surface development. A new policy and procedure and related process was created for Ministerial approval for mineral access rights.

#### Sustainability

The Sustainable Development Act was proclaimed on July 1, 1998. The Act creates a legal framework through which sustainable development will be implemented in the public sector and encouraged in private industry and society. An implementation process has been recently initiated and approved by Manitoba, and land management is currently providing technical support to many different provincial working groups and processes. Technical support is provided to COSDI, Codes of Practice, sustainability reporting, and financial management. Other important initiatives include sectoral strategies under the provincial land and water initiative. Land Management also provides technical support to the Sustainable Development Innovations Fund by reviewing technical reports and participating in the approving committee.

#### Protected Areas Initiative

Manitoba has initiated a program to protect representative landscapes and ecosystems from logging, mining and hydro development. Currently, 8.3% of Manitoba is legally protected from mining development with an additional 5.7% supported for protection by the mining sector. Mines Branch plays an important technical role in the process by legally withdrawing Crown mining rights from mineral exploration, development and extraction to protect critical habitat from mining activities. It also provides land tenure information and other support to the stakeholder approval process.

#### Treaty Land Entitlement

Progress was made towards meeting provincial obligations for Treaty Land Entitlement, Northern Flood Agreement and Grand Rapids Forebay Agreement in accordance with these legal agreement requirements. 116 land selections covering approximately 154,764 acres were assessed and approved. Land selections containing valid mineral dispositions in good standing were documented and technical support to the selection process was provided. Staff participated in resolving tenure conflicts associated with land selections and also provided procedural and policy advice.

#### Public Outreach

Land Management also provide educational and outreach services facilitating sustainability, mineral resource management to various land management boards, municipal councils, industry and the public. Public outreach services include presentations, workshops, and internet access to land management issues, policies, practices and ensure that there is an opportunity for public involvement and discussion regarding resource management issues. Activities include oral and poster presentations at conferences, workshops, public meetings and direct stakeholder consultations concerning mineral resource management. This activity helps facilitate informed decision making by the public, land management boards, industry, and the public.

#### **Assessment Section**

The Section receives and evaluates reports of required work submitted under The Mines and Minerals Act to ensure compliance with legislation and acceptable industry standards. At first confidential, these reports are eventually transferred to the non-confidential assessment library open to the public. These reports are indexed, microfilmed and scanned. Clients can view reports in our office or on the website.



Copies can be obtained by printing them directly from the website or ordering them from the Assessment Library. These reports are available on paper, microfilm or compact disc.

The Section also provides advice to the Review Panel and Administrator of the Mineral Exploration Assistance Program on the merits and validity of the projects, acceptance of final reports and recommendations on payment or non-payment of grants.

The Section monitors mining exploration activities in the province and contributes to the preparation of reports on industry activity. It also acts as liaison between Natural Resources Canada and the mining industry for the gathering of statistics on exploration and production.

At the request of the Manitoba Securities Commission, the section reviews technical submissions on mining projects to ensure that they conform with the reporting standards as set out in National Instrument 43-101 - Standards Of Disclosure For Mineral Projects. One mining project was reviewed during the past year.

	2000	2001	2002	2003
Reports of work added to assessment library	139	131	107	76
Reports transferred to non-confidential status	106	107	215	185
<b>PRIVATE SECTOR:</b>				
Website Visits	-	1542	3082	6026
Visits	191	166	188	252
Reports examined	978	613	809	1264
Reports duplicated for clients	372	357	316	458
Microfiche duplicated for clients	857	-	-	-
CD'S duplicated for clients	108	3	22	5
<b>DEPARTMENTAL STAFF:</b>				
Reports examined	556	276	250	248
Reports duplicated for staff	7	4	16	10
Microfiche duplicated for Winnipeg and Northern Offices	996	3090	3830	2752

### 10-3(b) Mines

Expenditures by Sub-Appropriation	Actual 2003/04 \$	Estimate 2003/04 FTE	Estimate 2003/04 \$	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	1,227.8	28.00	1,226.5	1.3	
Total Other Expenditures	387.3		395.3	(8.0)	
<b>Total Expenditures</b>	<b>1,615.1</b>	<b>28.00</b>	<b>1,621.8</b>	<b>(6.7)</b>	

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## **PETROLEUM**

### **OBJECTIVE**

To provide for and encourage the safe and efficient development of Manitoba's oil and gas resources in accordance with the principles of sustainable development.

### **ACTIVITIES/RESULTS**

Manitoba's oil and gas sector, though small by national or international standards, is a significant component of the provincial economy particularly in the southwestern part of the Province.

In 2003, Manitoba produced 633 098 cubic metres of oil having a total value of over \$157.4 Million. This is equivalent to about 25 percent of the province's refined petroleum products needs. Since there are no refineries in Manitoba all of the Province's production is exported through the Enbridge pipeline system to refiners in Ontario and the US.

In 2003, the petroleum industry spent \$99.6 million in Manitoba to explore for and develop new oil pools, to operate over 2,000 wells and transport crude oil and refined petroleum products within the province.

It is estimated that the petroleum industry in Manitoba provides direct employment for approximately 300-350 Manitobans and indirect employment for at least that many people.

In 2003/04, royalties, production taxes and revenue from the administration of Crown owned oil and gas rights and fees added \$6.0 million to the Provincial treasury. Significant revenues were also collected by the province through income taxes, retail sales tax, corporation capital tax, payroll tax and fuel taxes. In addition, the industry paid about \$2.0 million in property taxes to the various municipalities where oil wells and facilities are located.

The Branch administers The Oil and Gas Act and related regulations governing the exploration, development, production, transportation and storage of crude oil and natural gas. The Branch is also responsible for The Oil and Gas Production Tax Act. Additionally, officers and inspectors of the Branch are designated as Workplace Safety and Health Officers under The Workplace Safety and Health Act with respect to oilfield operations. The inspectors also act as industry's first point of contact with regard to oil field related environmental issues.

The Branch began consultation with industry and other stakeholders on proposed amendments to The Oil and Gas Act and The Oil and Gas Production Tax Act. The proposed amendments are designed to address a number of issues that have arisen since the Acts were introduced in the mid-1990's and provide more streamlined administration and governance.

The Manitoba Drilling Incentive Program established under the Crown Royalty and Incentives Regulation was extended to January 1, 2009. The incentive program was also enhanced to encourage investment in Manitoba's oil and gas resources. Major enhancements include:

- For new vertical wells, a minimum of 500 cubic metres of holiday oil can now be produced before crown royalty or production tax is paid.
- An increase in the volume of holiday oil that can be assigned from a company's holiday oil volume account to a newly drilled well. The holiday oil volume earned by a new well can now be "topped up" to 3,000 cubic metres.
- A new incentive for drilling new horizontal legs from existing horizontal wells. New horizontal legs qualify for a holiday oil volume of 3,000 cubic metres.
- A daily production increase of two cubic metres (from one to three) for marginal wells to qualify for the casing repair incentive.

The Branch abandoned three oil batteries and completed the restoration and initial rehabilitation of thirteen well and three battery sites seized from two different operators. The Branch also excavated and disposed of oil and salt water contaminated soil from an earthen pit on an old battery site. The total cost of \$154,668 for the abandonment, restoration and rehabilitation work was paid out of the Abandonment Fund Reserve Account.

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The Branch developed a GIS web-enabled map of Manitoba for the Petroleum website ([www.gov.mb.ca/itm/petroleum](http://www.gov.mb.ca/itm/petroleum)). The map covers southwestern Manitoba including townships 1-22; ranges 19-29 W1 and shows provincial Crown oil and gas rights mineral ownership, Crown oil and gas dispositions, wells, oil and gas facilities, field boundaries and topography orthophotos.

The Branch participated in the following consultation and promotional outreach activities during 2003/04:

1. Western Canada Sedimentary Basin Committee meeting on February 12-13 in Calgary, Alberta. The committee met to discuss potential areas of collaboration between geologists representing the four western provinces, two territories and the Geological Survey of Canada.
2. The 11<sup>th</sup> International Williston Basin Horizontal Well and Petroleum Conference, April 27-30, 2003 in Regina, Saskatchewan. The Branch presented an update of Manitoba oil and gas exploration and development activity at this forum.
3. Round Table Industry/Government Meetings were held in Calgary, Alberta on September 25, 2003 and in Virden, Manitoba on October 3, 2003. Meetings were held as a forum to discuss the Manitoba Drilling Incentive Program, proposals for amendments to The Oil and Gas Act and The Oil and Gas Production Tax Act and other industry issues.
4. Manitoba–North Dakota Memorandum of Understanding Meeting, November 20-21, 2003 in Winnipeg, Manitoba. Branch geologists met with colleagues in North Dakota to discuss current and future projects and possibilities for future collaboration.
5. Public Meeting on The Oil and Gas Act and The Oil and Gas Production Tax Act amendments was held in Virden, Manitoba on November 24, 2003 to obtain public input and comments on the proposed legislative amendments.
6. The Branch sponsored a booth displaying statistics and general information on Manitoba's oil industry at the 2003 Weyburn Oil Show, June 3-5, 2003 in Weyburn, Saskatchewan.

## **Administration and Geology Section**

### **Administration**

Administration is responsible for collection of petroleum revenues and administration of Crown owned oil and gas rights. The section collects annual lease rentals, Crown oil royalties and freehold oil taxes, conducts sales of Crown oil and gas leases and exploration reservations and processes lease renewals and extensions. The section is responsible for administering provisions of the Crown Disposition Regulation, the Crown Royalty and Incentives Regulation, the Oil and Gas Lease Agents Regulation and portions of the Drilling and Production Regulation under The Oil and Gas Act. The section also administers The Oil and Gas Production Tax Act and Regulation.

*Crown Oil and Gas Rights* - Four Crown oil and gas lease sales were held in 2003/04. Forty-one leases covering 3 520 hectares were sold for a total of revenue of \$220,235. Revenue collected from Crown oil and gas lease sales was down from the 2002/03 revenue of \$349,149.

Since 1979, the province has collected over \$31.6 million from the disposition of Crown oil and gas rights. As of December 31, 2003, 42 217 hectares of Crown oil and gas rights were under disposition. Crown leases accounted for 100% of this total. Compared to 2002, the total area under disposition decreased by 11%.

The section processed 21 lease renewals, 46 lease surrenders, 21 transfers of dispositions and 21 oil and gas lease agent renewals and registrations. It also issued 37 new leases.

*Data Collection* - The section collects monthly oil production data and data on the disposal and injection of salt water for all active wells in the province. As of December 31, 2003, there were 2,108 non-abandoned wells in Manitoba. Digital production and injection histories are available for all wells.

During 2003/04, the section collected \$6.0 million from the petroleum industry. This revenue comprised \$2.6 million in Crown oil royalties, \$3.0 million in freehold oil taxes and \$0.4 million from administration of Crown oil and gas rights, fees for well licences, battery operating permits, geophysical licences, and oil and gas lease agent registration and publication sales. The revenue collected was down from the \$6.7 million collected in 2002/03.

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*Manitoba Drilling Incentive Program, (1992-2009)* - The Manitoba Drilling Incentive Program provides licensees of wells drilled after January 1, 1992 and before January 1, 2009 a holiday oil volume of production that is exempt from Crown royalties or freehold production taxes; the holiday volume earned is a function of oil price and location of the new well with respect to other wells.

Holiday oil volumes of up to 20 000 cubic metres can be earned by a new well.

In the eleventh year of this program, 74 wells earned an average holiday oil volume of 2 775.0 cubic metres, bringing the total number of wells with a holiday oil volume in the program to 294, as of December 2003. In 2003, 61 wells completed production of their holiday oil volume.

Any horizontal well drilled prior to January 1, 2009 receives a holiday oil volume of 10,000 cubic metres. Nine horizontal wells were drilled in 2003.

Effective November 11, 1995, a marginal well where a workover is completed prior to January 1, 2009 earns a 500 cubic metre holiday oil volume. A marginal well is defined as a well that, over the previous 12 months, has been shut-in or has an average production rate of less than 1 cubic metre per operating day. Major workovers include the re-entry of abandoned wells, deepening or recompletion of existing wells from one pool to another and the repair of the casing in a well. Five wells earned a holiday oil volume under the program in 2003.

The Manitoba Drilling Incentive Program provides for a portion of the oil produced from a new waterflood, or other enhanced oil recovery (EOR) project implemented after April 1, 1999, which is attributed to an increase in reserves, to qualify as third tier oil for royalty/tax purposes. A portion of production from nine approved EOR projects have qualified as third tier oil.

Newly drilled injection wells, or wells converted to injection within an approved EOR project, qualify for an "injection well incentive" and a one-year royalty/tax exemption. As of December 31, 2003, a total of 26 wells qualified for "injection well incentive" under the program. Eighteen of the wells have completed their injection incentive period.

A booklet entitled *Manitoba Petroleum Fiscal Regime* providing detailed information on the drilling incentive program, provincial Crown royalties and provincial freehold oil production taxes is available on the Petroleum website.

*Performance Deposits and the Abandonment Fund Reserve Account* – The section administers trust accounts for performance deposits and the Abandonment Fund Reserve Account. Applicants for licences or permits issued under The Oil and Gas Act are required to submit a performance deposit to ensure operations comply with the Act and regulations. These deposits are held in trust until required rehabilitation work has been completed. Approximately \$1.1 million in cash, term deposits and letters of credit are administered.

The Abandonment Fund Reserve Account is established under The Oil and Gas Act. Non-refundable levies on geophysical and well licences, transfer of well licences, battery operating permits and inactive wells are deposited in the Account. The Account is used as a source of funds to operate or abandon a well or facility that is in non-compliance with the Act, where the licensee of the well or facility fails to do so. The Account can also be used to rehabilitate the site of an abandoned well or facility or to address any adverse effect on property caused by a well or facility. An expenditure from the Account on behalf of a licensee automatically creates a debt of the licensee to the Crown, recoverable in court.

An annual report of activities relating to the Account to March 31/03 is available from the Branch and is posted on the Petroleum website.

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**Abandonment Fund Reserve Account Activity**

<b>Opening Balance (April 1, 2003)</b>		<b>150,865</b>
<b>Deposits</b>		<b>105,825</b>
Levies and Penalties	104,600	
Interest	1,225	
Recovery of Expenditures	0	
<b>Expenditures</b>		<b>154,668</b>
Oilex Exploration Ltd.	118,775	
Fawn Petroleums Ltd.	20,867	
SE1/4 Section 10-10-28 WPM	15,026	
<b>Closing Balance (March 31, 2004)</b>		<b>102,022</b>

**Geology**

Geology prepares reports on Manitoba's petroleum geology and hydrocarbon potential to encourage and assist in the exploration and development of the province's oil and gas resources. A system for the designation of field and pool boundaries is maintained. As of December 31, 2003, Manitoba had 13 designated oil fields and 159 designated oil pools. Field and pool codes for 109 new wells were assigned during 2003/04.

In addition, Geology provides consultation and assistance to the public and the petroleum industry.

Accomplishments in 2003/04 include:

- Continued enhancement of geological formation tops data base as part of the Manitoba Oil and Gas Well Information System.
- Initiation of the Targeted Geoscience Initiative II: Williston Basin Architecture and Hydrocarbon Potential. This project is in partnership with the Geological Survey of Canada, Saskatchewan Industry, Trade and Resources, and the Petroleum and Geological Surveys Branches of Manitoba Industry, Economic Development and Mines. The objective of the 2-year project is to produce a geological model of Phanerozoic rocks over a significant portion of Saskatchewan and Manitoba to enhance our understanding of the hydrocarbon and mineral potential. This model will incorporate geophysical and hydrogeological data to enhance our understanding of hydrocarbon migration paths and traps, within and beyond, traditional geographic areas of hydrocarbon production through subsurface geological mapping, geophysical mapping, hydrogeological mapping and remotely sensed imagery analysis.

**Engineering and Inspection Section****Engineering**

Under the authority of the Drilling and Production Regulation and the Geophysical Regulation, Engineering processes drilling licences, geophysical licences and applications to recomplete, suspend, or abandon wells. It also issues permits for all oil and gas facilities. In 2003/04, a total of 92 drilling licences and four geophysical licences were issued. In addition, 74 technical well operations applications were processed.

Technical studies are undertaken of oil and gas reserves and enhanced recovery potential. As of December 31, 2002, total and remaining proved developed oil reserves in Manitoba were 40.1 million cubic metres and 4.6 million cubic metres, respectively. Reserve additions for 2000-02 totalled 2.7 million cubic metres, 43% more than oil production over the same period. The 2002 reserve life index is 7.0 years. One new enhanced oil recovery (EOR) projects was approved in 2003/04. The project qualifies for third tier EOR production status and the new injection well incentive program.

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Information and advice are provided to the petroleum industry and the public at the Winnipeg, Virden and Waskada offices. The following informational notices were issued by the Branch in 2003/04:

- Informational Notice 03-1–Abandonment, Restoration and Rehabilitation Procedures\*-June 18, 2003
- Informational Notice 03-2–Schedule of Public Offerings of Manitoba Crown Oil and Gas Rights-2004-July 3, 2003
- Notice to Landowners–Pipelines and Right of Ways: Public and Environmental Safety–January 7, 2004
- Informational Notice 04-1–Well Log Digital Submission Requirements Open Hole Logs–March 17, 2004

\*issued jointly by the Surface Rights Board and the Petroleum Branch

### **Inspection**

Inspection enforces regulations under The Oil and Gas Act related to geophysical, drilling, production, and pipeline operations. Specifically, the inspectors license and inspect field facilities, investigate complaints, witness specific operations, and interpret and communicate departmental or regulatory requirements to industry personnel. Inspectors are also responsible for carrying out safety and health inspections of petroleum industry operations under The Workplace Safety and Health Act. District offices are located in Virden and Waskada.

More than 1,200 wells and oil and gas facilities in the province were inspected at least once during the year. A total of 147 non-compliance orders were issued in 2003/04 for wells and oil and gas facilities not in compliance with the Act. A total of 90 battery and flowline applications were processed and 108 excavation permits issued.

Inspectors visit all abandoned wellsites to ensure that the abandonment and clean up have been conducted properly and that plant growth has been established. During 2003/04, 54 Certificates of Abandonment were issued, allowing for the release of wells from performance deposit requirements. The unit also manages a program of environmental protection involving the rehabilitation of all oil or salt water spill sites. During 2003/04, 33 new spills and 129 old spill sites were inspected and 45 spill sites were fully rehabilitated and released from the Branch's rehabilitation program.

Inspection participates on the steering committee of the Manitoba Producers Oil Spill Cooperative and represents the Department on the Canadian Petroleum Safety Council and on Petroleum Industry Training Service committees responsible for the development of safety, environmental and other training courses for oilfield workers. Inspection participated in the development of draft workplace safety and health regulations for oil and gas drilling and service rigs. The goal of the proposed regulation is to ensure compatibility between western Canadian jurisdictions where these rigs operate. The unit also takes an active role in the management of oilfield waste and other environmental issues facing the petroleum industry.

### **Digital Information Services Section**

Digital Information Services is responsible for development and maintenance of computer systems within the Branch. These systems include a diverse collection of activities such as web services, database maintenance, GIS, application development and document images and drafting services.

In 2003/04, the section focused on three major areas: GIS map products, Petroleum website enhancements and the continued development and support of the Manitoba Oil and Gas Well Information System (MOGWIS).

Accomplishments in 2003/04 include:

- Automated well location, Crown oil and gas rights, and oil pool maps for presentation on the GIS Map Gallery on the internet map server. The maps, which are automatically updated by the Manitoba Oil and Gas Well Information System (MOGWIS), are available for printing upon request.
- Physical facilities such as battery and associated facilities, lease roads and spill sites have or are being made available on the map server.
- Updated all tools and server which required a recompilation of all Oracle programs in preparation for Department computer upgrades

- Continued development of a program to assist Administration and Geology in conducting audits of Crown royalty and freehold production tax payments. The system is being tested with completion by fall of 2004.
- Continued support for the Oracle Petroleum Branch database and the Manitoba Oil and Gas Well Information System (MOGWIS).
- Ongoing support for GIS functions.
- Continued updating and enhancement of Petroleum Website – 135 578 page visits and 93 684 downloads of information, forms and documents in 2003/04.
- Supported ongoing agreements to supply Manitoba data to petroleum industry data/software vendors

### **Minister's and Director's Approvals**

Under The Oil and Gas Act, the Minister and the Director of Petroleum have authority to issue orders relating to drilling, production, storage and transportation of oil and gas. The Minister has authority to make orders relating to well spacing, enhanced recovery, maximum production rates, seizure of wells and facilities and to enter into Unit Agreements on behalf of the Crown. The Lieutenant Governor in Council has delegated parts of this authority, under Order in Council 384/2001, to the Director where the circumstances are considered routine. The Director has authority to issue orders relating to salt water disposal, designation of field and pools, designation of new oil status and to affect the seizure of wells and facilities of a non compliant operator pursuant to a Ministerial Seizure Order.

### **In 2003/04, the following Ministerial Orders were issued:**

Pipeline Construction Permit No. 2*	April 15, 2003	Plains Marketing Canada L.P.
Pipeline Operating Licence No. 03-01*	July 23, 2003	Plains Marketing Canada L.P.
Waterflood Order No. 14*	August 6, 2003	EOG Resources Canada Ltd.
Unit Agreement – Waskada Unit No. 19	August 6, 2003	EOG Resources Canada Ltd.

\*order made by Director of Petroleum under delegation

### **In 2003/04 the Director of Petroleum made the following orders:**

Salt Water Disposal Permit No. 154A	May 23, 2003	Tundra Oil and Gas Ltd.
Salt Water Disposal Permit No. 153B	August 6, 2003	Nexen Chemicals Canada Partnership Limited
Salt Water Disposal Permit No. 108A	August 26, 2003	Enerplus Oil & Gas Ltd.
Salt Water Disposal Permit No. 116A	August 26, 2003	Enerplus Oil & Gas Ltd.
Salt Water Disposal Permit No. 158A	August 26, 2003	Enerplus Oil & Gas Ltd.
Salt Water Disposal Permit No. 159A	August 26, 2003	Enerplus Oil & Gas Ltd.
Director's Decision 04-01 (Section 93)	March 9, 2004	EOG Resources Canada Ltd.

### **Petroleum Industry Overview :**

	<b>2003</b>	<b>2002</b>
New Wells Drilled	94	97
Oil Production	633 098 m <sup>3</sup> (3,984,017 bbls)	650 750 m <sup>3</sup> (4,095,099 bbls)
Value of Oil Sales (\$million)	\$157.4	\$150.0
Average Selling Price	\$248.61/m <sup>3</sup> (\$39.51/bbl)	\$230.59/m <sup>3</sup> (\$36.64/bbl)
Wells Producing - December 2003	1,487	1,402
Estimated Industry Expenditures (\$million)	\$99.6	\$97.9

More comprehensive information and historical statistics on Manitoba's petroleum industry are presented in the Oil Activity Review available from the Petroleum Branch.

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**10-3(c) Petroleum**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	1,099.3	20.50	1,085.1	14.2	
Total Other Expenditures	294.5		289.2	5.3	
<b>Total Expenditures</b>	<b>1,393.8</b>	<b>20.50</b>	<b>1,374.3</b>	<b>19.5</b>	

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## BOARDS AND COMMISSIONS

### OBJECTIVES

To provide for the resolution of disputes between surface rights holders, mineral rights, and oil and gas rights holders with respect to accessing minerals, oil and gas.

#### Mining Board

The Mining Board is established under the Mines and Minerals Act. The primary function of the Board is the arbitration of disputes between surface rights holders and mineral rights holders with respect to accessing of minerals other than oil and gas. The Board can also hear and resolve disputes between holders of mineral dispositions and between holders and officers of the Department.

In 2003/04 two cases were referred to the Mining Board.

- Peter Dunlop vs. Mines Branch, May 16, 2003
- Steve Lesavage vs. Mines Branch, June 18, 2003

#### Surface Rights Board

Responsibility for the Surface Rights Act was transferred from Intergovernmental Affairs to Industry, Trade and Mines in April 2002. The Surface Rights Act establishes a quasi-judicial process for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Act also establishes a Board to arbitrate and mediate disputes and establishes appropriate compensation for petroleum development activities. Land Management provides secretarial support to the process and the Board. Manitoba hosted the Western Canada's Surface Rights Conference in June 2003 at the Elkhorn Resort in Clear Lake. The Conference provided an overview of issues and trends related to Board matters in Western Canada in the oil and gas section.

1. Signed Agreements for Surface Leases (fiscal year) = 126  
Total Number of Recorded Surface Leases = 2110
2. Review of Compensation Applications = 0
3. Right of Entry Applications = 0
4. Termination of Board Orders = 0
5. Application for Abandonment Orders = 1
6. Board Orders Issued = 2
  - EOG vs. Griffith Board Order dated June 5, 2003, R0E 16 LSD's.
  - Tundra vs. Hobbs Board Order dated October 2, 2003, Abandonment Order

#### 10-3(d) Boards and Commissions

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries and Employee Benefits	16.3		22.7	(6.4)	
Total Other Expenditures	26.7		18.0	8.7	1
<b>Total Expenditures</b>	<b>43.0</b>		<b>40.7</b>	<b>2.3</b>	

1. *Increased Board hearing expenditures.*

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# COMMUNITY AND ECONOMIC DEVELOPMENT

## COMMUNITY AND ECONOMIC DEVELOPMENT COMMITTEE

### OBJECTIVES

The Community and Economic Development Committee (CEDC) is the Cabinet committee responsible for initiation and co-ordination of community and economic development activity. CEDC comprises of six senior cabinet ministers and the Premier, and is chaired by the Minister of Energy, Science and Technology.

The CEDC Secretariat provides analytical expertise and administrative support to the Committee. Staff assist the Committee in the development and implementation of policy and projects consistent with the community and economic development priorities of Government. In co-operation with departments, community and business leaders, the Secretariat provides CEDC with the necessary supports and analysis to ensure responsible economic growth and sustainability for the Province of Manitoba.

### ACTIVITIES/RESULTS

Some of the specific results achieved through the involvement of the Secretariat were:

**Action Strategy for Economic Growth** - Co-ordination of development of the Province's new economic development strategy – The Action Strategy for Economic Growth. The Action Strategy was based on recommendations provided by the Premier's Economic Advisory Council and was published as a special Budget paper in the 2003 Budget. The components of the strategy are: education first; building through research and innovation; raising and retaining investment; affordable government; growing through immigration; building on our energy advantage.

**Northern Development Strategy** - Co-ordination of departments' activities regarding Northern Manitoba focused on transportation, health, employment and training, housing and economic development. Partnership building is an important principle that is being implemented through the work of the Province, Manitoba Hydro and Hydro affected First Nations in Hydro Pre-Project Training. The partnership model is working toward the involvement of the federal government.

**Community Economic Development Initiative** - Co-ordination of inter-departmental efforts to support Community Economic Development (CED) by establishing policies and programs in line with the provincial government's CED Lens. The CED Initiative partners with community groups to develop inter-sectoral supports to assist communities in their efforts to build social, human and financial capital in marginalized communities.

**Destination Winnipeg** – Co-ordination of provincial negotiations with the City of Winnipeg on the establishment of a new tourism and economic development agency, Destination Winnipeg. This new agency combines the resources and expertise of Tourism Winnipeg and Economic Development Winnipeg.

**Winnipeg Symphony Orchestra** - Ongoing coordination of provincial role during the reorganization of the Winnipeg Symphony Orchestra.

**Keystone Centre** - Ongoing facilitation and co-ordination of inter-departmental and inter-governmental supports to the issues facing Brandon's Keystone Centre including; long term strategic and capital planning issues, implementing of a long term operating and capital support package to the Centre and addressing governance issues at the Centre.

**Port of Churchill** - Coordination of negotiations with the town of Churchill, the federal and provincial governments, and OmniTRAX to ensure the continuing viability of the Port of Churchill.

**Maple Leaf** - Co-ordination of inter-departmental and inter-governmental supports to assist the expansion

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of a second shift at the Maple Leaf plant in Brandon.

**McKenzie Seeds** - Co-ordination of inter-departmental and inter-governmental supports to assist the private buy out by local owners of the McKenzie Seed plant in Brandon.

**Sherridon Rail Line-** Co-ordination of inter-departmental and inter-governmental supports to assist in ensuring the ongoing viability of the Sherridon Rail Line.

**Hydro Power Sale:** role in coordinating efforts to expand export sales of Manitoba's clean, green, renewable hydro electricity, with attention to maximizing opportunities for Aboriginal involvement and benefit, and northern development

**Centre for Disease Control North** - Facilitation and co-ordination of provincial efforts to secure the national public health response agency headquartered in Winnipeg with the Canadian Science Center for Human and Animal Health.

**Biovail** - Ongoing discussion with Biovail with regards to expansion at their Steinbach plant. This would make Manitoba a world wide center of excellence and distribution facility for Biovail.

**Center for Advanced Composites** - Inter-departmental and inter-governmental coordination to support the establishment of a Center for Advanced Composites at the University of Manitoba.

**Manitoba Film and Video Production Tax Credit:** Coordinated the implementation of changes to the Film and Video Tax Credit Program brought forward by an advisory committee of film, industry and government representatives. The purpose of the changes in the tax credit program is to further encourage the growth of film and video production in Manitoba.

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#### 10-4(a) Community and Economic Development Committee

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>Estimate 2003/04 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	805.3	11.00	841.4	(36.1)	
Total Other Expenditures	410.0		357.3	52.7	
<b>Total Expenditures</b>	<b>1,215.3</b>	<b>11.00</b>	<b>1,198.7</b>	<b>16.6</b>	

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## PREMIER'S ECONOMIC ADVISORY COUNCIL

### OBJECTIVES

In November of 2001, the Premier invited 34 prominent Manitobans to form an advisory body to provide him with continuing input on economic priorities. This new organization, the Premier's Economic Advisory Council (PEAC), is made up of business Labour, education, community and Aboriginal leaders. PEAC is co-chaired by Bob Silver and Robert Ziegler.

### ACTIVITIES/RESULTS

PEAC has recommended strategies for attracting investment, expanding immigration, enhancing labour force development and retention, improving the image of our province, expanding natural resource development, and establishing a long-term vision for research and development.

Some specific activities of PEAC were:

**Advanced Composites** - PEAC formed a broad based task group to provide recommendations for an economic development strategy focused on the use of advanced composite materials, including the creation of a "Centre for Excellence in Composite Materials" as outlined in the Manitoba Innovation Framework.

**Image Strategy Development** - PEAC has been invited by the Premier to provide further recommendations in the area of Manitoba's image. It has formed a broad-based Task Group who will support a process to develop a new Image Strategy for the Province of Manitoba. PEAC has identified that Manitoba's future economic success will be influenced by how others view Manitoba and how Manitobans view themselves.

**Aboriginal Summit** - PEAC will host a summit to be held in late Fall 2004. Based on the successful Century Summit (2000) model, the Aboriginal Summit will focus on Aboriginal business development and increasing Aboriginal participation in the workforce.

**Local Investment Council** - Under the auspices of PEAC, volunteers representing the broader investment community, Labour, Institutional Funds and Manitoba and Winnipeg Chamber of Commerce have joined members of PEAC to investigate methods to increase levels of capital investment and re-investment in Manitoba.

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### 10-4(b) Premier's Economic Advisory Council

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	154.2	2.00	140.6	13.6	
Total Other Expenditures	147.5		238.8	(91.3)	1
<b>Total Expenditures</b>	<b>301.7</b>	<b>2.00</b>	<b>379.4</b>	<b>(77.7)</b>	

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1. A reduction in discretionary operating expenditures and postponed project costs.

## AMORTIZATION AND OTHER COSTS RELATED TO CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates. Consistent with this policy, this sub-appropriation records the costs associated with the amortization of the Department's share of the total estimated costs of the Desktop Management Initiative and Enterprise System Management allocated to the Department. In the case of Desktop, based on units acquired by the Department as a percentage of total units acquired by the Province and, in the case of Enterprise System Management, by projected departmental used. A small amount is also included for the amortization of other departmental assets.

### 10-5(a) Amortization and Other Costs Related to Capital Assets - Desktop Services

Expenditures by Sub-Appropriation	Actual 2003/04	Estimate 2003/04		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Amortization of Expenses - Hardware & Transition	81.1		80.7	0.4	
Enterprise Software Licenses	65.4		65.6	(0.2)	
<b>Total Expenditures</b>	<b>146.5</b>		<b>146.3</b>	<b>0.2</b>	

### 10-5(b) Amortization and Other Costs Related to Capital Assets - Amortization Expense

Expenditures by Sub-Appropriation	Actual 2003/04	Estimate 2003/04		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Amortization Expense	64.2		75.2	(11.0)	
<b>Total Expenditures</b>	<b>64.2</b>		<b>75.2</b>	<b>(11.0)</b>	

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## Emergency Measures Organization

### OBJECTIVES

The Emergency Measures Organization (EMO) is committed to:

- Fulfill its statutory requirements, as established by *The Emergency Measures Act*, as the provincial government's coordinating agency for emergency management;
- Establishing and building the provincial government's capacity to coordinate, manage and participate in multi-agency emergency response situations;
- Support post-disaster recovery of private individuals, small businesses, some non-profit organizations and government;
- Foster a climate of cooperation among all sectors involved with the protection of public safety and security in Manitoba;
- Work cooperatively with other governmental and non-governmental agencies to develop policies and programs that enhance public safety; and
- The continuous improvement of all aspects of emergency management in Manitoba.

### ACTIVITIES/RESULTS

#### **Manitoba Emergency Measures Organization 2003-2004 Accomplishments:**

##### **Emergency Response and Disaster Financial Assistance – Spring 2004 Flooding**

Manitoba EMO was closely engaged with agencies at the municipal, provincial and federal levels to coordinate activities as part of a heavy spring run-off event in March 2004. Beyond having been involved in response to flooding events in Southeast Manitoba and the Interlake, Manitoba EMO established and delivered a Disaster Financial Assistance program in support of impacted residences and communities.

##### **Manitoba Critical Infrastructure Advisory Council**

The power outage in eastern Canada in August 2003 demonstrates our dependence on certain critical infrastructure components. The emergency preparedness of these important services, utilities and facilities has been identified as a national vulnerability. To encourage coordination and co-operation between and across critical infrastructure sectors, Manitoba EMO has created the Manitoba Critical Infrastructure Advisory Council, a voluntary organization of private and public sector agencies with responsibilities in this area. The Council met several times over the year to advance emergency planning issues of mutual and public importance.

##### **Temporary Emergency Assignment Management System (TEAMS)**

Employees from across government are an integral component of the provincial government's emergency response capability. To ensure these employees are properly trained and organized in such a way to ensure their prompt and effective deployment, Manitoba EMO formed the Temporary Emergency Assignment Management System (TEAMS). TEAMS members, who have been identified as important participants in emergency responses involving the provincial government, receive enhanced training and provide an enhanced resource as part of emergency activities.

##### **Security Legislation**

In response to the new security environment created after the attacks of September 11, 2001, the Legislature passed the *Security Management (Various Acts Amended) Act*, an omnibus bill that amended nine provincial acts to include increased security and public safety provisions. Manitoba EMO has been working with departments from across government to implement these amendments and provide an on-going review of the security environment and the need for further changes. Manitoba EMO performs a secretariat function to the Security Subcommittee of Cabinet and the All Party Task Force on Security, both of which conducted on-going reviews and initiatives that further advanced the provincial response to security issues.

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### Municipal emergency planning requirements

The *Security Management Act* amended the *Emergency Measures Act* to require municipal governments to submit their emergency plans for review and approval by Manitoba EMO, with the authority for Manitoba EMO to compel modifications that will result in a meaningful and useful level of planning. This is a significant improvement over the previous requirements, which had municipalities submit their plans but left no authority for the province to compel the necessary improvements. To assist municipalities in meeting these requirements, Manitoba EMO and the Association of Manitoba Municipalities have worked together to develop a checklist of minimal requirements for emergency planning, the completion of which will result in an acceptable municipal emergency plan. An enhanced list was also developed, with those municipalities meeting those requirements receiving a Recognition of Merit in Emergency Planning from the provincial government. As a result of this initiative, which will be completed in 2005, Manitoba will have the strongest and deepest system of municipal emergency preparedness in Canada.

### Emergency public information

Manitoba EMO and the Broadcaster's Association of Manitoba have agreed upon a memorandum of understanding for the communication of important public information during emergencies. Under this MOU, Manitoba's private broadcasters – who reach over 95 per cent of Manitobans – have agreed to a set of protocols that will result in the immediate, verbatim retransmission of important public information during an emergency within 15-30 minutes of receipt. The development of standards and practices for emergency communication is a significant enhancement to Manitoba's emergency preparedness resources.

### Chemical, Biological, Radiological and Nuclear (CBRN) response capacity

With the high volume of hazardous material transportation and the increasingly complexity and volume of these materials, the need for specialized equipment and training has become an essential component of first response. In support of these demands, a national strategy has been developed to build regional capacity for Chemical, Biological, Radiological and Nuclear (CBRN) events – a cluster that represents the emerging challenges for specialized first response. The provincial and federal governments have contributed \$700,000 for the development of CBRN capacity in Manitoba. This training, which is administered provincially by Manitoba EMO, will be conducted at various locations across Canada, and will certify selected Manitoba first responders in CBRN response.

### Urban Search and Rescue

While the attacks of September 11, 2001, highlighted the importance of Urban Search and Rescue (USAR) capacity, the application of these multi-disciplinary teams is not limited to terrorist attacks. The collapse of a building in Toronto in December 2003 demonstrates that the need to extricate people from a collapsed structure can occur at any time. As part of a national strategy, regional USAR teams are being composed of personnel from fire, paramedic and police forces. Manitoba has developed its USAR teams with personnel from the Office of the Fire Commissioner, Winnipeg Fire and Paramedic Service, Brandon Police Department, and the Royal Canadian Mounted Police – the varied make-up of USAR teams reflects the wide range of potential events they might respond to. USAR team members will undergo training funded jointly by the federal and provincial governments, and will be activated if needed. With funding commitments resulting in differing levels of training and response capability, Manitoba's USAR team will be trained to the medium level. Manitoba has made an investment of over \$227,000 for the development of provincial USAR capacity.

### Provincial risk assessment and hazard analysis project

As part of the provincial government's efforts in response to new and emerging public safety concerns, a province wide provincial risk analysis and hazard assessment is being conducted by Manitoba EMO in conjunction with the Office of the Fire Commissioner. It has been over 30 years since a community-by-community exercise has been undertaken that identifies the nature of potentially serious hazards, the resources available to manage those hazards, and potential gaps in protecting communities. In seeking this information, Manitoba EMO will be providing the detailed and current data required for communities to develop meaningful emergency plans. The provincial risk assessment and hazard analysis project was initiated in 2001, and approximately 85 per cent of Manitoba communities have been evaluated through this project.

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**15-4 Emergency Measures Organization**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	960.2	19.00	1,072.1	(111.9)	
Total Other Expenditures	601.2		508.7	92.5	
<b>Total Expenditures</b>	<b>1,561.4</b>	<b>19.00</b>	<b>1,580.8</b>	<b>(19.4)</b>	

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## INDUSTRY, ECONOMIC DEVELOPMENT AND MINES

### Reconciliation Statement

<b>EXPENDITURE DETAILS</b>	
2003/04 MAIN ESTIMATES	31,083.2
Transfer of Functions from:	
Transportation and Government Services	1,580.8
Internal Reform, Workforce Adjustment and General Salary Increases	85.0
Transfer of functions to:	
Intergovernmental Affairs and Trade	(2,231.7)
Agriculture, Food and Rural Initiatives	(104.0)
2003/04 ESTIMATE	30,413.3

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**Please refer to attached Expenditure Summary , Excel Document**



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**Expenditures Summary page 3 (excel document)**

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## Industry, Economic Development and Mines Expenditure Summary Explanations

### **Explanations:**

1. *Expenditures were higher in 2003/04 then in 2002/03.*
2. *In 2002/03 work was performed for Energy, Science and Technology. There is no comparable expenditure in 2003/04.*
3. *Interest expense was higher in 2002/03 compared to 2003/04.*
4. *Grant payments were lower in 2002/03 then in 2003/04.*
5. *In 2002/03 the interest and bad debt expense were higher then in 2003/04.*
6. *Variance is directly related to MIOP.*
7. *Grant payments were higher in 2002/03.*
8. *Grant payments were higher in 2002/03.*
9. *Variance due to The Pas Mining Recording office.*
10. *Higher Board Hearing expenditures in 2002/03.*
11. *Amortization expense for 2002/03 was high then in 2003/04.*
12. *Variance due to retirement of assets in 2002/03.*

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**Revenue Summary by Source and explanations**  
**Please refer to the Excel document**

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**Five Year Expenditures and Staffing Summary by Approp. (Excel document)**

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**OTHER APPROPRIATIONS**

**27-1 Emergency Expenditures**



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## SUB-APPROPRIATION 27-1

### EMERGENCY EXPENDITURES

#### OBJECTIVES

To provide a funding source for expenditures related to disasters such as forest fires, flooding and environmental emergencies.

#### ACTIVITIES/RESULTS

Provides for expenditures related to forest fires, flooding and other natural disasters, including departmental food, forest fire and environmental emergency response costs and disaster assistance and other emergency related items. It also provides for partial reimbursement to government departments for property losses not covered by insurance.

The annual estimate of expenditure is derived from historical averages. Actual expenditures vary from year to year depending on weather and the frequency of disasters.

#### 27-1 EMERGENCY EXPENDITURES

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2003/04 \$</b>	<b>Estimate 2003/04 FTE</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Emergency Expenditures	96,070.0	25,000.0	71,070.0	1
<b>Total Expenditures</b>	<b>96,070.0</b>	<b>25,000.0</b>	<b>71,070.0</b>	

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1. Primarily due to 2003-04 fiscal year representing one of the worst years (recorded) for forest fires in Manitoba.

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## Emergency Expenditures

## Reconciliation Statement

	<b>EXPENDITURE DETAILS</b>	
	2003/04 MAIN ESTIMATES	25,000.0
	2003/04 ESTIMATE	25,000.0

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**Expenditures Summary & Variance Explanations  
(Excel Document)**

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**Revenue Summary by Source ( Excel Document)**

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**Five Year Expenditures by Program. (Excel Document)**

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## **APPENDIX A**

### **ASSOCIATED AGENCIES, BOARDS, COMMISSIONS and COUNCILS**

#### **THE MANITOBA DESIGN INSTITUTE**

The Manitoba Design Institute was established by an Act of the Legislative Assembly in 1963. The Institute had no operating budget or staff in 2003/04.

#### **THE MANITOBA DEVELOPMENT CORPORATION**

The Manitoba Development Corporation (MDC) provides loans and loan guarantees under Part 2, The Development Corporation Act. MDC tables its annual financial statements under separate cover with the Manitoba Legislature.

#### **MANITOBA LIQUOR CONTROL COMMISSION**

The Manitoba Liquor Control Commission tables its annual report under separate cover with the Manitoba Legislature.

#### **MANITOBA LOTTERIES CORPORATION**

The Manitoba Lotteries Corporation tables its annual report under separate cover with the Manitoba Legislature.

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## APPENDIX B

### FINANCIAL INFORMATION

Industry, Economic Development and Mines

#### Summary of Business Assistance

2003-2004 Fiscal Year

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ASSOCIATION CONTRIBUTIONS	25,000.00
FEASIBILITY STUDIES/PROJECTS	69,545.61
MANITOBA HORSE RACING COMMISSION	241,700.00
MANITOBA PROSPECTORS ASSISTANCE PROGRAM	72,657.84
MINERAL EXPLORATION ASSISTANCE PROGRAM	2,010,058.85
NEW BUSINESS ASSISTANCE - TECHNOLOGY COMMERCIALIZATION	300,107.85
SMALL BUSINESS DEVELOPMENT	30,000.00
SPECIAL ASSISTANCE	610,026.29
STRATEGIC STUDIES	<u>66,337.16</u>
	<b><u>\$ 3,425,433.60</u></b>

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## APPENDIX C

### FINANCIAL INFORMATION

Industry, Economic Development & Mines

#### List of Business Assistance

2003-2004 Fiscal Year

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#### ASSOCIATION CONTRIBUTIONS

Skills Canada Manitoba	25,000.00
	<u>\$ 25,000.00</u>

#### FEASIBILITY PROJECTS/STUDIES

Edward A. Speer & Associates	20,706.61
Koller Agri-Food Development Ltd.	6,239.00
N.M. Paterson & Sons Ltd.	6,000.00
Norscan Instruments Ltd.	24,100.00
Sequoia Energy Inc.	12,500.00
	<u>\$ 69,545.61</u>

#### MANITOBA HORSE RACING COMMISSION

Manitoba Horse Racing Commission	241,700.00
	<u>\$ 241,700.00</u>

#### MANITOBA PROSPECTORS' ASSISTANCE PROGRAM

Buhlmann, Eckart	2,749.13
Davy, Gordon	7,500.00
De Graff, Ken	5,681.07
Hood, William	2,992.76
Hubscher, Murray	3,475.36
Klyne, Ken	4,698.10
Kuran, William S.	5,540.82
Lee, John	2,244.66
Masson, Richard	13,294.56
Ottenbreit, Richard	955.35
Rastel, James	6,740.19
Reibin, Len	2,909.50
Thorne, Paul	6,426.72
Westdal, Harold	7,449.62
	<u>\$ 72,657.84</u>



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## APPENDIX C

### FINANCIAL INFORMATION

Industry, Economic Development & Mines

#### List of Business Assistance

2003-2004 Fiscal Year

#### MINERAL EXPLORATION ASSISTANCE PROGRAM

1126774 Ontario Ltd.	100,872.30
4378831 Manitoba Ltd.	38,554.04
Anglo American Exploration (Canada) Ltd.	126,010.11
Aurora Pacific Consulting and Development Corp.	44,707.68
Bema Gold Corporation	226,048.72
BHP Billiton Diamonds Inc.	33,704.29
Buhlmann and Associates Inc.	27,461.59
Callinan Mines Limited	53,250.37
Canadian Gold Hunter Corp.	59,192.67
Canadian Royalties Inc.	53,250.37
Columbia Yukon Explorations Inc.	24,460.26
Coniagas Resources Limited	77,693.92
Donner Minerals Ltd.	79,858.00
Foran Mining Corporation	121,432.49
Gossan Resources Limited	75,510.12
Greenbelt Gold Mines Inc.	52,283.67
Hudson Bay Exploration and Development Company Limited	93,798.63
ICON Industries Limited	15,678.44
Klyne Exploration	5,359.65
Marksmen Resources Ltd.	22,021.42
Mid-North Resources Limited	22,995.43
NDT Ventures Ltd.	28,258.61
Nuinsco Resources Limited	40,222.93
Pioneer Metals Corporation	22,342.86
Placer Dome Canada	84,325.38
Rare Earth Metals Corp.	57,582.86
San Gold Resources Corporation	90,244.12
Strider Resources Limited	2,965.32
Tanqueray Resources Ltd.	36,605.70
Tantalum Mining Corporation of Canada Limited	18,750.75
Trans America Industries Ltd.	123,354.62
Tudale Exploration Ltd.	36,237.03
Valgold Resources Ltd.	9,584.40
W. Bruce Dunlop Ltd.	9,815.97
W.S Ferreira Ltd.	13,899.92
Wildcat Exploration Ltd.	81,724.21
	<u>\$ 2,010,058.85</u>

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## APPENDIX C

### FINANCIAL INFORMATION

Industry, Economic Development & Mines

#### List of Business Assistance

2003-2004 Fiscal Year

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#### NEW BUSINESS ASSISTANCE - TECHNOLOGY COMMERCIALIZATION

Character Mail	7,212.82
E & M Automotion Inc	8,508.48
Frantic Films Corp.	24,899.17
IC Group Inc.	13,931.25
Information Forge Inc.	10,622.15
JAFT Corp	50,000.00
Manitoba Aerospace Association Inc.	14,195.62
North Country Plastics	1,566.31
Osorno Enterprises Inc.	42,720.15
Planned Legacy Inc.	11,500.00
Protegra Technology Group Inc.	34,675.00
Safety Base Ltd.	4,048.49
Sidetrack Technologies Inc.	32,689.09
Tell Us About Us Inc.	9,297.12
Valley Fabricating and Iron Works	985.00
Van Deuren Bill	4,600.00
Vari Tech Systems Inc.	8,473.29
Wardrop Engineering Inc.	17,254.93
Wehnersound Ltd.	2,928.98
	<hr/>
	<b>\$ 300,107.85</b>

#### SMALL BUSINESS AND CO-OPERATIVE DEVELOPMENT

Manitoba Marketing Network Inc	<hr/> 30,000.00
	<b>\$ 30,000.00</b>

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## APPENDIX C

### FINANCIAL INFORMATION

Industry, Economic Development & Mines

#### List of Business Assistance

2003-2004 Fiscal Year

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#### SPECIAL ASSISTANCE

Benito Meats	2,652.00
Berscheid Meats LTD.	1,896.00
BJ Packers	13,884.00
Canadian Manufacturers & Exporters	25,000.00
Carman Meats	3,684.00
CDEM	25,000.00
Churchill Northern Studies Centre	20,945.33
Composites Innovations Centre	200,000.00
Country Meat & Sausage	19,836.00
Dauphin Meat Processors	4,008.00
Rancher's Choice Beef Co-op	68,216.10
Family Choice Meats	8,496.00
Gossan Resources Ltd.	7,802.87
Hatch Wilson	10,000.00
Health Sciences Centre	18,600.00
Interlake Packers Ltd.	7,392.00
Internal Trade Secretariat	13,224.00
Jarvis Meats Ltd.	4,008.00
Jenkinson's Meat Market Locker	14,232.00
Killarney Meats Ltd.	2,676.00
Madill Meats	2,304.00
Manitoba Beef Fund	25,000.00
Manitoba Development Corp.	22,841.99
Manitoba Fashion Institute	20,000.00
Manitoba Film and Sound Recording	10,000.00
Oak River Quick Freeze (1994) Ltd.	27,780.00
Prairie Rose Meats Ltd.	6,012.00
Renards Meats Services	4,872.00
Roastwell International Inc.	5,000.00
Souris Valley Processors (1998)	2,988.00
Swan Lake Abattoir	1,848.00
Trail Meats (1984)	4,464.00
Valley Meat Packers 2003 Ltd.	5,364.00
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	<b>\$ 610,026.29</b>

#### STRATEGIC STUDIES

Brett Young Seed LTD.	66,337.16
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	<b>\$ 66,337.16</b>

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## APPENDIX D

### MINERAL RESOURCES DIVISION PUBLICATIONS

#### Open File Reports

- OF2004-1 (digital web release only)  
Manitoba Kimberlite Indicator Mineral Database (Version 1.1) / Keller, G.R., Bogdan, D.J. and Matile, G.L.D.  
(supersedes OF2003-3)
- OF2003-3 (digital web release only)  
Manitoba Kimberlite Indicator Mineral Database / Keller, G.R., Bogdan, D.J. and Matile, G.L.D.
- OF2001-7  
Summary of geophysical data from open assessment files of the Fox River Sill area, Manitoba (part of NTS 53N, 53M and 54D) / Hosain, I.T.

#### Mineral Deposit Series

- MDS Report No. 30  
Mineral deposits and occurrences in the Elbow Lake area, Manitoba, NTS 63K15 / Heine, T.H.
- MDS Report No. 31  
Mineral deposits and occurrences in the Iskwasum Lake area, Manitoba, NTS 63K10 / Heine, T.H.

#### Exploration Report Series

- EX2004-1 (digital web release only)  
Detection of base-metal massive sulphide type mineralization using conductivity measurements on rock-powder slurries: an example from the Photo Lake Cu-Zn deposit, Snow Lake, Manitoba (NTS 63K16) / Fedikow, M.A.F. and Conley, G.G.
- EX2003-1 (digital web release only)  
Enzyme Leach<sup>SM</sup> and Mobil Metal Ion<sup>®</sup> B-horizon-based soil geochemical surveys over the Thorne gold zone and adjacent areas, Snow Lake, Manitoba / Fedikow, M.A.F.

#### Geoscientific Map Series

- MAP2004-4  
Shaded relief topography of Manitoba / Matile, G.L.D. and Keller, G.R. (colour map, scale 1:1 000 000)
- MAP2003-1  
Surficial geology, Inwood, Manitoba (NTS 62I11, 12, 13 and 14) / N.M. Grant, N.M. (colour map, scale 1:100 000)
- MAP2003-2  
Surficial geology, Bélair, Manitoba (NTS 62I9, 10, 15 and 16) / Burt, A.K. (colour map, scale 1:100 000)
- MAP2003-3  
Surficial geology, Nopiming, Manitoba-Ontario (NTS 52L11, 12, 13 and 14) / Mann, J.D. (colour map, scale 1:100 000)
- MAP2003-4  
Surficial geology, Woodlands, Manitoba (NTS 62I3, 4, 5 and 6) / Grant, N.M. (colour map, scale 1:100 000)
- MAP2003-5  
Surficial geology, Beausejour, Manitoba (NTS 62I1, 2, 7 and 8) / Burt, A.K. (colour map, scale 1:100 000)
- MAP2003-6  
Surficial geology, Big Whiteshell Lake, Manitoba-Ontario (NTS 52L3, 4, 5 and 6) / Mann, J.D. (colour map, scale 1:100 000)
- MAP2003-7  
Surficial geology, Winnipeg, Manitoba (NTS 62H11, 12, 13 and 14) / Matile, G.L.D. (colour map, scale 1:100 000)
- MAP2003-8  
Surficial geology, Steinbach, Manitoba (NTS 62H9, 10, 15 and 16) / Matile, G.L.D. (colour map, scale 1:100 000)
- MAP2003-9  
Surficial geology, West Hawk Lake, Manitoba-Ontario (NTS 52E11, 12, 13 and 14) / Matile, G.L.D. (colour map, scale 1:100 000)
- MAP2003-10  
Surficial geology, Winkler, Manitoba (NTS 62H3, 4, 5 and 6) / Matile, G.L.D. (colour map, scale 1:100 000)

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MAP2003-11  
Surficial geology, Sandilands, Manitoba (NTS 62H1, 2, 7 and 8) / Matile, G.L.D. (colour map, scale 1:100 000)

MAP2003-12  
Surficial geology, Whitemouth Lake, Manitoba-Ontario-Minnesota (NTS 52E3, 4, 5 and 6) / Matile, G.L.D. (colour map, scale 1:100 000)

### **Preliminary Map Series**

PMAP2003-1  
Geology and structure of the Garner Lake area, southeast Rice Lake greenstone belt, Manitoba (part of NTS 52L14) / Anderson, S.D. (colour map, scale 1:20 000)

PMAP 2003-2  
Geology of the Blueberry Lake area, Manitoba (part of NTS 63K14NW) / Gilbert, H.P. (black & white map, scale 1:20 000)

PMAP2003-3  
Geology of the Gull Rapids area, Manitoba (part of NTS 54D6) / Böhm, C.O., Bowerman, M.S. and Downey, M.W. (colour map, scale 1:5000)

PMAP2003-4  
Geology of the western Sharpe Lake area, Manitoba (NTS 63K5) / Corkery, M.T., Beaumont-Smith, C.J., Anderson, S.D. and Bailes, A.H. (colour map, scale 1:50 000)

PMAP2003-5  
Geology of the eastern Sharpe Lake area, Manitoba (NTS 63K6) / Corkery, M.T., Beaumont-Smith, C.J., Anderson, S.D. and Bailes, A.H. (colour map, scale 1:50 000)

PMAP2003-6  
Geology of the Millrock Hill area, Flin Flon, Manitoba (parts of NTS 63K12NW and 63K13SW) / Gibson, H.L., Bailes, A.H., Tourigny, G. and Syme, E.C. (colour map, scale 1:500)

PMAP2003-7  
Geology of the South Main shaft area, Flin Flon, Manitoba (parts of NTS 63K12NW and 63K13SW) / Bailes, A.H., Bray, D. and Syme, E.C. (colour map, scale 1:500)

### **Report of Activities 2003**

Annual review / Syme, E.C., p. 1-7.

#### **FLIN FLON-SNOW LAKE**

Geological investigations in the northern Flin Flon Belt, Manitoba (parts of NTS 63K13NE and 14NW) / Gilbert, H.P., p. 9-21

Volcanogenic massive sulphide deposit documentation in the Snow Lake area, Manitoba (NTS 63J13 and 63K16): progress report / Heine, T.H., 22-24

Platinum group element investigations in the Flin Flon greenstone belt: Mikanagan Lake and Tartan Lake gabbroic complexes, Manitoba (NTS 63K13) / Theyer, P. and Heine, T.H., p. 25-28

Geochemical studies of dwarf birch twigs, peat, bog iron and clay at Reed Lake, Manitoba (NTS 63K10) / Gale, G.H., p. 29-36

Activities of the Manitoba Geological Survey's Flin Flon Regional Office / Heine, T.H., p. 37-38

#### **LYNN LAKE-LEAF RAPIDS**

Tectonic evolution and gold metallogeny of the Lynn Lake greenstone belt, Manitoba (NTS64C10, 11, 12, 14, 15 and 16) / Beaumont-Smith, C.J. and Böhm, C.O., p. 39-49

Rare earth element studies of soils and vegetation over the MacBride Lake massive sulphide deposit and the MacLellan mine Rainbow gold zone, Lynn Lake area, Manitoba (NTS 64C15 and 64B13) / Gale, G.H., p. 50

Trace-element signatures of massive sulphides from the Fox Mine, Lynn Lake (NTS 64C12) / McClenaghan, S.H., Gale, G.H. and Lentz, D.R., p. 51-53

Vectoring volcanogenic massive sulphide deposits using rare earth elements and other pathfinder elements at the Ruttan mine, Manitoba (NTS 63B5) / Gale, G.H., p.54-73

Determining residual mineral potential in drillcore from the Ruttan and Lynn Lake areas, Manitoba (NTS 64B and 64C) / Gale, G.H., p. 74-78

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Hydrothermal iron-sulphide copper-graphite mineralization in the northern Kiseynew Domain, Trans-Hudson Orogen, Manitoba (NTS 63O and 64B): evidence for deep-seated IOCG (Olympic Dam)-style metal deposition? / Mumin, A.H. and Trott, M., p. 79-85

#### SUPERIOR BOUNDARY ZONE, THOMPSON NICKEL BELT

Superior margin programs in the lower Nelson River region, Manitoba (parts of NTS 54D and 64A): year one / Böhm, C.O., Corkery, M.T., Bowerman, M.S., Downey, M.W., Hartlaub, R.P., Kuiper, Y.D., Heaman, L.M. and Lin, S., p. 86-91

Bedrock mapping in the Gull Rapids area, northern Manitoba (NTS 54D6) / Böhm, C.O., Bowerman, M.S. and Downey, M.W., p. 92-104

Structural geology of the Assean Lake and Aiken River deformation zones, northern Manitoba (NTS 64A1, 2 and 8) / Kuiper, Y.D., Lin, S., Böhm, C.O., and Corkery, M.T., p. 105-113

Split Lake Block revisited: new geological constraints from the Birthday to Gull Rapids corridor of the lower Nelson River (NTS 54D5 and 6) / Hartlaub, R.P., Heaman, L.M., Böhm, C.O. and Corkery, M.T., p. 114-117

Field relations, U-Pb zircon ages and Nd model ages of granitoid intrusions along the Thompson Nickel Belt-Kiseynew Domain boundary, Setting Lake area, Manitoba (NTS 63J15 and 63O2) / Zwanzig, H.V., Böhm, C.O., Protrel, A. and Machado, N., p. 118-129

Thompson Nickel Belt Project, Manitoba (parts of NTS 63J, 63O and 63P): progress report / Macek, J.J. and McGregor, C.R., p. 130-131

Mineral modes of gneiss along the Thompson Nickel Belt-Kiseynew Domain boundary, Manitoba (parts of 63J, 63O, 63P, 63Q, 64A and 64B) / Parson, T.L. and Zwanzig, H.V., p. 132-137

Petrogenesis of the Thompson Formation T1 member, Thompson Nickel Belt, Manitoba (NTS 63P12) / Couëslan, C.G., p. 137-139

#### NORTHERN SUPERIOR

Preliminary results and economic significance of geological mapping and structural analysis at Sharpe Lake, northern Superior Province, Manitoba (parts of NTS 53K5 and 6) / Beaumont-Smith, C.J., Anderson, S.D., Bailes, A.H. and Corkery, M.T., p. 140-158

New insights into supracrustal assemblages and regional correlations for the Island Lake greenstone belt, northwestern Superior Province, Manitoba (parts of NTS 53E15 and 16) / Parks, J., Lin, S., Corker, M.T. and Davis, D.W., p. 159-164

#### NORTHERN MANITOBA

Metallic and silica resource potential of the Churchill area, northern Manitoba (parts of NTS 54K13SE and 54L16SW) / Bamburak, J.D., p. 165-170

Paleozoic drillcore from the Churchill area, northern Manitoba: preliminary results (NTS 54K and 54L) / Young, G.A., Elias, R. J. and Dobrzanski, E.P., p. 171-177

#### SOUTHEASTERN MANITOBA

Geology and structure of the Garner Lake area, southeast Rice Lake greenstone belt, Manitoba (NTS 52L14) / Anderson, S.D., p. 178-195

Platinum group element investigation in the Mayville igneous complex, southeastern Manitoba (NTS 52L12) / Theyer, P., p. 196-199

Phytoremediation of mine tailings and bio-ore production: progress report on seed germination, plant growth and metal accumulation in seedlings planted at Central Manitoba (Au) minesite (NTS 52L13) / Renault, S., Szczerski, C., Nakata, C., Sailerova, E. and Fedikow, M.A.F., p. 200-208

Understanding drought in the Winnipeg River basin, Manitoba / St. George, S., p. 209-212

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## SOUTH-CENTRAL MANITOBA

Preliminary karst inventory of areas north and south of Grand Rapids, Manitoba (NTS 63B and 63G) / Bezys, R.K. and Kobylecki, A.J., p. 213-223

Grassy Bay aeromagnetic-anomaly cluster: a potential source for the Porcupine Hills kimberlite indicator minerals in west-central Manitoba (NTS 63C13NE) / Hosain, I.T. and Bamburak, J.D., p. 224-230

Quaternary mapping progress in southern Manitoba Phanerozoic terrane: 2-D and 3-D / Matile, G.L.D., Keller, G.R., Thorleifson, L.H. and Pyne, D.M., p. 231-238

## MANITOBA GENERAL

The search for diamonds in Manitoba: an update / Manitoba Geological Survey, p. 239-246

Manitoba's Precambrian Drillcore Libraries Program / Prouse, D.E., p. 247-249

The Manitoba Stratigraphic Database: an update / Conley, G.G., p. 250-254

## External Publications

Bailes, A.H., Jonasson, I., Galley, A.G. and Syme, E.C. 2003: Tectonostratigraphic setting of volcanic massive sulphide deposits in the Paleoproterozoic Flin Flon Belt, Manitoba and Saskatchewan; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 628, CD-ROM.

Beaumont-Smith, C.J. and Böhm, C.O. 2003: Tectonic evolution and gold metallogeny of the Lynn Lake greenstone belt, Manitoba; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 622, CD-ROM.

Brooks, G.R., St. George, S., Lewis, C.F.M., Mediola, B.E., Nielsen, E., Simpson, S. and Thorleifson, L.H. 2003: Geoscientific insights into Red River flood hazards in Manitoba; Geological Survey of Canada, Open File Report 4473, 35 p.

Brooks, G.R., St. George, S., Lewis, C.F.M., Mediola, B.E., Nielsen, E., Simpson, S. and Thorleifson, L.H. 2003: Geoscientific insights into Red River flood hazards in Manitoba: the final report of the Red River Flood Project; Natural Resources Canada, 1 v.

Devine, C.A., Gibson, H.L., Bailes, A.H., Galley, A.G., MacLachlan, K. and Gilmore, K. 2003: Origin and emplacement of VMS-hosting, Paleoproterozoic volcanoclastic rocks within the Flin Flon subsidence structure, Flin Flon, Manitoba and Saskatchewan; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 145, CD-ROM.

Ferguson, G. and St. George, S. in press: Historical and estimated groundwater levels near Winnipeg, Canada and their sensitivity to climatic variability; *Journal of the American Water Resources Association*.

Fox, J.N. 2003: Manitoba Williston Basin activity update; *in* Eleventh Williston Basin Horizontal Well & Petroleum Conference, Saskatchewan Energy and Mines, North Dakota Geological Survey, Regina, SK, April 27-30, 2003, 6 p.

Gibson, H.L., Ames, D., Bailes, A., Tardif, N., Devine, C., Galley, A., MacLachlan, K. and Gilmore, K. 2003: Invasive flows, peperite and Paleoproterozoic massive sulphide, Flin Flon, Manitoba and Saskatchewan; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 357, CD-ROM.

Gibson, H.L., Devine, C., Galley, A., Bailes, A., Gilmore, K., MacLachlan, K. and Ames, D. 2003: Structural control on the location and formation of Paleoproterozoic massive sulfide deposits as indicated by synvolcanic dike swarms and peperite, Flin Flon, Manitoba and Saskatchewan; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 354, CD-ROM.

Gilbert, H.P. 2003: Application of geochemistry for the assessment of economic potential of tectonically distinct volcanic terranes in the northern Flin Flon Belt, Manitoba, Canada; Geological Association of Canada-Mineralogical Association of Canada-Society of Economic Geologists, Joint Annual Meeting 2003, Vancouver, British Columbia, Abstracts, v. 28, no. 118, CD-ROM.

Olivo, G.R. and Theyer, P. in press: Platinum-group minerals from the McBratney PGE-Au occurrence in the Flin Flon greenstone belt, Manitoba, Canada; *Canadian Mineralogist*.

Prouse, D.E. 2003: Manitoba exploration and development highlights 2002; Exploration and development highlights: an annual publication of the Prospectors and Developers Association of Canada, March 2003, p. 19-21.

Rogge, D.M., Beaumont-Smith, C.J., Halden, N.M. 2003: Application of data integration for deformation potential mapping using remotely acquired data sets within the Lynn Lake Greenstone Belt, northwestern Manitoba, Canada; *Canadian Journal of Remote Sensing*, v. 29, no. 4, p. 458-471.

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St. George, S. and Nielsen, E. 2003: Palaeoflood records for the Red River, Manitoba, Canada derived from anatomical tree-ring signatures; *The Holocene*, v. 13, p. 547-555.

St. George, S. and Nielsen, E. 2003: Paleoflood records from anatomical tree-ring signatures: environmental assessment from the width, anatomy, and chemical composition of tree rings; *American Geophysical Union Meeting 2003*, San Francisco, California, (abstract).

St. George, S. and Rannie, B. 2003: Causes, progression, and magnitude of the 1826 Red River flood in Manitoba; *Canadian Water Resources Journal*, v. 28, p. 99-120.

St. George, S., Ruffman, A. and Nielsen, E. 2003: A nascent tree-ring network for Nova Scotia; [Abstract]. *Canadian Quaternary Association–Canadian Geomorphology Research Group, Biannual Meeting 2003*, Halifax, Nova Scotia (abstract).

### **Manitoba Mining & Minerals Convention Speaker Abstracts Winnipeg, Manitoba, November 13-15, 2003**

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#### **Miscellaneous Publications**

- Manitoba Mining – promotional brochure and CD
- Manitoba Mining & Minerals Convention 2004 lure piece
- Manitoba Mining & Minerals Convention 2003 Registration Guide
- Manitoba Mining & Minerals Convention 2003 Program
- Mineral Exploration Assistance Program (MEAP) – booklet and fact sheet
- Manitoba Prospectors Assistance Program (MPAP) – booklet and fact sheet
- Release Notice – bimonthly notice of new Manitoba Geological Survey reports and maps available for purchase
- Exploration Activity Map 2003 – fact sheet
- Provincial Mining Week 2003- flyer
- Manitoba review – for *Overview of trends in Canadian Mineral Exploration 2003*
- Discoveries start here!: highlights from the 2003 Manitoba Mining and Minerals Convention – article for the *Keystone Professional*
- Manitoba exploration and development highlights 2003 - article for *Northern Prospector 2003*
- Manitoba Industry, Trade and Mines: commitment to mineral exploration – article for *Northern Prospector 2003*
- Diamonds in Manitoba – article for *Canadian Diamond Notes*,

#### **New Web Site Documents/Applications**

- Manitoba's Diamond Exploration Strategy
- National Diamond Strategy, Working Group on Exploration
- GIS Map Gallery (expanded to include an Manitoba's Integrated Anomaly Map; Petroleum Crown Oil and Gas Rights)
- Publications Sales E-store
- Publication Sales (new releases of geological reports and maps)
- Report of Activities 2003
- Provincial Mining Week 2003
- 2003 Exploration Activity Map
- 2003 Exploration and Development Highlights
- 2003 Manitoba Mining and Minerals Convention
- Manitoba Mining Advantage
- Manitoba Mining News/Releases
- Manitoba Oil Activity Review 2002