# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Activities</td>
<td>2</td>
</tr>
<tr>
<td>Mining at Ekati Diamond Mine™</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Management at Ekati</td>
<td>6</td>
</tr>
<tr>
<td>Working with Communities</td>
<td>8</td>
</tr>
<tr>
<td>Wildlife Effects Monitoring</td>
<td>13</td>
</tr>
<tr>
<td>Mine Wastes</td>
<td>16</td>
</tr>
<tr>
<td>Regional Monitoring and Cumulative Effects</td>
<td>18</td>
</tr>
<tr>
<td>Recommendations</td>
<td>21</td>
</tr>
<tr>
<td>Closing the Mine</td>
<td>24</td>
</tr>
</tbody>
</table>

## Regulators

**DFO**
Department of Fisheries and Oceans

**DIAND**
Department of Indian Affairs and Northern Development

**EC**
Environment Canada

**ENR**
GNWT’s Environment and Natural Resources (previously known as RWED or Resources, Wildlife and Economic Development)

**GNU**
Government of Nunavut

**GNWT**
Government of the Northwest Territories

**MVLWB**
Mackenzie Valley Land and Water Board

**WBI**
Western Canadian Great Lakes Basin Joint Venture
Message from the Chairperson

I am pleased to present to you the 2004-5 Annual Report of the Independent Environmental Monitoring Agency (the Agency). We have put together this plain language report and a more technical one too. This report provides a summary of the Agency’s activities and offers recommendations to BHP Billiton (BHPB) and the regulators to help with environmental management at Ekati Diamond Mine™.

Changes in the last year for the Agency involved our manager, Carole Mills, leaving us to return to the Government of Canada. We thank her for her many valued contributions and welcome Kevin O’Reilly as our new manager and Dr. Anne Naeth as a new director.

As stated in previous reports, environmental performance at Ekati continues to be good. To ensure this continues into the future, there needs to be good monitoring programs today. We were pleased with the way BHPB took the lead in the review of the tailings area, and also, how the Aboriginal Peoples were involved in providing input into the options.

Most of the Agency’s time over the last year was spent on the water licence process for Ekati, the review of tailings management, and regional effects of the mine (especially on caribou). Our major focus now is on planning for the mine’s closure. Even though this may be about ten years away, it is important to plan for good closure now to avoid future problems. With the help of DIAND, we held a workshop on reclamation and mine closure that helped participants to better understand some important issues for closing Ekati.

As recommended by our Aboriginal members, we spent more time visiting communities and helping them understand what is happening at the mine and we held a board meeting in Kugluktuk at the invitation of the Kitikmeot Inuit Association. The Aboriginal participation in our environmental workshop helped us to understand concerns about caribou and how better monitoring might be done.

Please contact us if you would like us to visit your community, have concerns about the mine, or if you have comments on our activities.

The Agency has had problems with BHPB because the company has several times tried to interfere with the Agency’s independence. BHPB denied funding requests from the Agency because it does not agree with some of our activities. For the first time ever, BHPB rejected our work plan and budget for the next two years. The process to settle this disagreement is set out in the Environmental Agreement.

We continue to believe that the Environmental Agreement and independent monitoring is a good approach to environmental management in the North and we will work together with all of our Society members to make this happen.

William A. Ross, Chairperson
March 31, 2005
Agency Activities

The Independent Environmental Monitoring Agency was formed in 1997 to act as a public watchdog for environmental management of Ekati. We are made up of a Board of Directors, some appointed directly by our Aboriginal Society members, and others appointed jointly by DIAND, GNWT and BHPB. The Agency has two staff with an office in Yellowknife and meets regularly throughout the year. We welcome the comments of our Aboriginal members and the public at any time.

Most of the Agency work involves the review of BHPB’s environmental reports and talking with our Aboriginal members and the regulators (see list of regulators). Core activities of the Agency include board meetings, an annual general meeting, preparation of an annual report, an Ekati Mine site visit, and individual director visits to the communities. Additional activities in 2004 included Agency participation in the water licence renewal public hearing and a community open house in Kuugluktuk, Nunavut.

We rely on funding from BHPB to carry out our work. In addition, we relied on partner funding to host or participate in major events. In 2004 three events involved such funding:

- **The Reclamation and Closure Workshop sponsored by DIAND.** The Agency hosted and delivered the workshop along with a steering committee made up of staff from the Agency, DIAND and BHPB. The workshop provided all participants with an opportunity to learn about mine reclamation terminology and to discuss closure options for mine components such as pits, tailings ponds, waste rock piles and roads (see the Closing the Mine chapter in this report);

- **The Long Lake Containment Facility (LLCF) options and analysis process was funded by BHPB.** We participated in the process to learn about the management of the tailings at Ekati. Different options were looked at on how to best contain the tailings while protecting water quality (see the Closing the Mine chapter in this report); and
The Ekati Environmental Workshop that was supported financially by DIAND. We reviewed BHPB’s aquatic monitoring results from 2004 and prepared presentations for our Aboriginal members and the regulators to discuss the results. We also hosted a meeting following the workshop to listen to any concerns or issues from our Aboriginal members. The elders at this meeting provided valuable advice on caribou monitoring.

Evaluating the Agency

Last year we reported that we would try to improve our working relations with, and the technical advice given to BHPB. These efforts were often sidetracked by differences of opinion on the mandate of the Agency and trying to sort out budget related matters. The Agency and the company were also very busy with the water licence renewal process that extended into 2005. Even so, we were able to direct a lot of attention to wildlife and aquatic monitoring and reclamation of Ekati. We received a lot of positive feedback related to our annual report last year and for the quality of information we provided to our Aboriginal members during meetings.

<table>
<thead>
<tr>
<th>Agency Mandate</th>
<th>To Meet its Mandate in 2004 the Agency</th>
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</thead>
<tbody>
<tr>
<td>✓ Review, report and make recommendations on BHPB and government reports and plans.</td>
<td>• Reviewed and provided comments on reclamation and closure, waste rock seepage, wastewater and processed kimberlite management, water licence renewal and aquatic effects monitoring.</td>
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<td>✓ Make recommendations on the integration of Traditional Knowledge (TK) and experience of Aboriginal Peoples into environmental plans and programs.</td>
<td>• Expanded efforts at community consultation with our Aboriginal members led to new recommendations to BHPB and the regulators in 2004.</td>
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<td>✓ Participate as an intervenor in regulatory processes.</td>
<td>• Intervened at the public hearing for the renewal of the Ekati water licence.</td>
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<td>✓ Provide an accessible public repository of all environmental information relevant to the project.</td>
<td>• Maintained a web site which contains copies of reference documents, Agency technical review documents, board meeting summaries, records of incoming and outgoing correspondence, slide presentations and digital photographs. • Maintained and updated a resource centre of relevant correspondence and reports.</td>
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<td>✓ Provide ways of distributing information to Aboriginal Peoples and the public.</td>
<td>• Hosted the Ekati Environmental Workshop in March 2005. • Hosted a board meeting and open house in Kugluktuk, Nunavut in August 2004. • Responded positively to invitations to Agency directors to consult directly with communities. • Hosted our annual general meeting and prepared a plain language and technical annual report.</td>
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<td>✓ Provide an effective means to bring to BHPB and governments the concerns of Aboriginal Peoples and the general public.</td>
<td>• Provided a forum for Aboriginal member concerns to be shared with BHPB at the Agency annual general meeting and at other events. • Forwarded recommendations from the Ekati Environmental Workshop to BHPB and the regulators.</td>
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</tbody>
</table>
BHPB is mining diamonds on its mineral claims block north of Lac de Gras in the barrenlands of the Northwest Territories (for location site map see inside back cover). The diamonds are contained in large carrot-shaped rock formations, called kimberlite pipes, extending over 300 metres below the ground. Most of the pipes BHPB is mining are located beneath lakes.

1. Tailings Pond

The tailings pond or Long Lake Containment Facility is a former lake that is used by BHPB to contain the very fine kimberlite and water mixture that is left over after the diamonds are removed. It has been split into five sections or cells that contain and settle the tailings and allow the water to be filtered by dykes. Once the water leaves the last cell of the tailings pond it must be clean enough so that it does not harm the lakes and fish downstream of Ekati. Photo: cell B at the north end of Long Lake

2. Main Camp

BHPB has built accommodation buildings, a truck shop and process plant. These buildings are some of the biggest in the Northwest Territories. The process plant washes and grinds the kimberlite rock, and separates out the diamonds. Photo: Ekati main camp complex
3. Waste Rock Piles
Rock that contains little or no diamonds is piled on the ground, usually a short distance from the pit it was taken from. These piles will grow up to 50 metres tall and cover large areas of the tundra. Photo: Panda/Koala Waste Rock Pile

4. Panda Diversion Channel
This is a man-made channel that diverts water that would otherwise drain into the pits. It is also being used by arctic grayling for spawning. Photo: The Panda Diversion Channel

5. Haul Roads
Roads made of waste rock and quarried rock connect all parts of the mine, including the Misery, Fox and Beartooth sites and other developments. Haul roads may cause problems for migrating wildlife because of steep edges, traffic on the road, or dust. Photo: Haul trucks on Misery Road

6. Fox Pit
Fox Pit was the focus of open pit mining in 2004 and is rapidly becoming the largest pit at Ekati. Photo: Mining within the Fox Pit

7. Panda and Koala Pits
Open pit mining is almost complete at Koala Pit and is now complete at Panda Pit. The pits will fill with water when the mine is reclaimed and closed. Photo: Panda Pit

8. Underground Mining
BHPB is currently developing the Panda underground mine and a conveyor to bring the kimberlite to the surface. Photo: Koala North

9. Beartooth Pit
BHPB has started to mine Beartooth Pit. It is the first of three new pits to be mined as part of the mine expansion approved in 2003. Photo: Beartooth Pit

10. Misery Site
The Misery Pit is about 30 km southeast of the main site. BHPB mined at Misery in 2004 and plans to close the pit for a long time.