

The background of the cover is a landscape photograph. The top half shows a wide, flat, open area with sparse, low-lying vegetation in shades of red, orange, and yellow, under a cloudy sky. In the foreground on the right, there is a stone cairn made of several stacked, flat, grey rocks. The bottom half of the image shows a close-up of a concrete-lined channel or dam structure with water flowing through it, surrounded by rocky terrain.

Plain Language Annual Report 2008-09

A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE™



Independent
Environmental
Monitoring Agency



Independent Environmental Monitoring Agency

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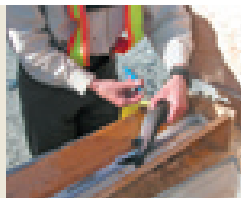
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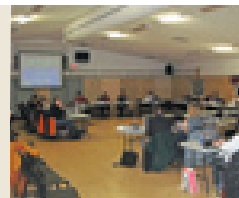
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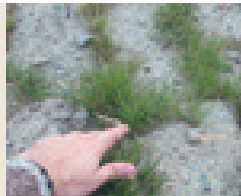
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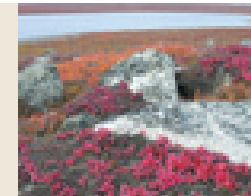
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Message from the Chair 2009

It is with pleasure that I present to you the 2008-09 Annual Report of the Independent Environmental Monitoring 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. We hope that you will find both of our reports to be useful.

Our main focus over the past year has been divided between closure and *reclamation* planning for the mine, and the water licensing process for the Sable, Pigeon and Beartooth pits. The Northwest Territories diamond mines are working together more closely on

wildlife monitoring, to better understand and deal with the combined effects that the mines have on wildlife. The Agency has taken an active role in participating in this work on wildlife monitoring.

We received valuable comments from our Aboriginal members when we visited the community of Lutsel K'e in September of 2008, and when we hosted environmental workshops and our annual general meeting in Yellowknife. We plan to have a board meeting to be hosted in a community in the fall of 2009 and hope to share detailed discussions about Ekati with you throughout the year.

In March of 2009 the Agency had an outside review of itself, so that we could improve our performance. Through this review government regulators and Aboriginal Society Members got to give their thoughts and comments about how the Agency is performing.

Sheryl Grieve was replaced as a director on the Agency

by Brad Enge and soon after by Audrey Enge. We thank them for their contributions and look forward to working with Audrey.

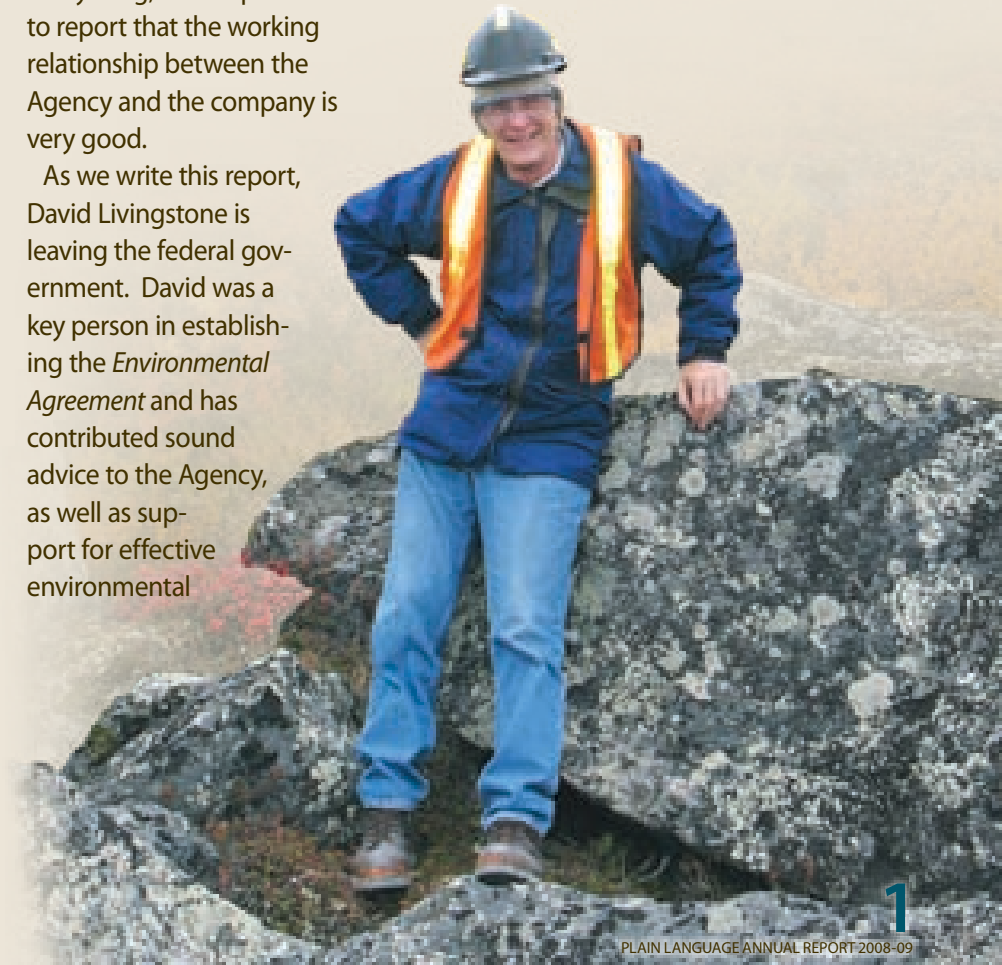
BHPB has continued to do a good job of environmental protection at Ekati. While we do not always agree on everything, we are pleased to report that the working relationship between the Agency and the company is very good.

As we write this report, David Livingstone is leaving the federal government. David was a key person in establishing the *Environmental Agreement* and has contributed sound advice to the Agency, as well as support for effective environmental

stewardship throughout the North. For this, we thank him and wish him well in his future plans. ■



William A. Ross, Chairperson
March 31st, 2009



HIGHLIGHTS:

- Five board meetings, plus the annual general meeting and an environmental workshop hosted by the Agency in Yellowknife.
- Board visit and open house in Lutsel K'e.
- Continued to take part in the Interim Closure and Reclamation Plan Working Group.
- Took part in the Sable, Pigeon and Beartooth water licence public hearing as an intervener.
- Took part in a review of the diamond mine wildlife monitoring programs.

How we do our work

The Agency Board and Membership

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 by our Aboriginal Society Members, and others appointed by the Department of Indian Affairs and Northern Development (DIAND), Government of the Northwest Territories (GNWT) and BHP Billiton (BHPB). We also have an office and two staff in Yellowknife. For a complete list of our directors and how to contact them, please see the back cover of this report.



Regulators tour of Ekati Mine in September 2008.

How the Agency Operates

The Agency has a schedule that includes five or six board meetings each year. We hold a board meeting in one of the Aboriginal communities in the Fall. Last year, we

met in Lutsel K'e and had some good discussions with people there about air quality, water quality and monitoring caribou. The directors review the technical reports produced by BHPB and provide comments and

recommendations for BHPB as well as for the government regulators. The Agency also participates in the regulatory process as an intervenor and providing comments to the government regulators on matters related to Ekati. Last year most meetings outside of our board meetings were related to closure and *reclamation* planning, the Sable, Pigeon and Beartooth development, and wildlife effects monitoring.

Agency Communication and Consultation Activities

Director visits to the communities are also a key part of Agency communications. We attempt to send a director to any community that asks for information or has concerns about Ekati. During 2008-09 we visited Lutsel K'e and for 2009-10 we plan to hold a community visit in another community. Aboriginal Society Members and regulators attended our annual general meeting and our environmental

workshop in December 2008. The Agency made a presentation to the North Slave Métis Alliance Environment Committee at its Ekati workshop in March 2009. A complete list of our *consultation* activities can be found in the technical version of our annual report.

Agency Performance

In the spring of 2009 the Agency hired SENES

Consulting to do an outside review of our performance in meeting our mandate. The last time such a review was done was in 2000. There were several recommendations made in the final report (see Table 1). Most of the recommendations by SENES involve communications with our Society Members. We will try harder to improve our *consultation*

and communications efforts. We welcome your input on the report and its recommendations. This can be done by phone, e-mail, mail or visiting our office at any time. We will be developing a timeline for the mine that will include operational, regulatory and environmental information. This work should be done in the Fall of 2009. ■

Table 1. Outside Review of the Agency

Recommendation #1

Renew the preparation of an Agency newsletter similar to the 'Ekati Monitor'.

Our Response: The idea of regular communications from the Agency to our Society Members appears sound to us. We would like to discuss the format and frequency with Society Members and ask what would work best: an e-mail newsletter, a paper newsletter, or a web-based newsletter or blog.

Recommendation #2

Prepare a "Reporting Back to Communities" pamphlet following community visits.

Our Response: We believe the idea of

a formal follow-up after a community visit is good one. We would like to discuss this further with our Society Members.

Recommendation #3

Organize more community meetings.

Our Response: We know that communities have very busy schedules and their own set of priorities. We would like to discuss the need for and costs of more community meetings further with our Society Members.

Recommendation #4

Prepare summary notes / highlights from Board of Directors meetings.

Our Response: The Agency accepts this recommendation. We will

summarize and distribute Board meeting highlights by e-mail to Society member representatives. We will do this on a trial basis and look forward to discussing what you think of this approach at our Annual General Meeting.

Recommendation #5

Where appropriate, make action-oriented, prescriptive recommendations in Annual Reports.

Our Response: The Agency agrees with this recommendation. We will try harder to improve our formal recommendations in our future Annual Reports. Indeed, we have tried to do so in the report we are now preparing. ■

Mining at Ekati

BHP Billiton (BHPB) is mining diamonds using large open pits and underground tunnels to remove the kimberlite rock that contains the diamonds.



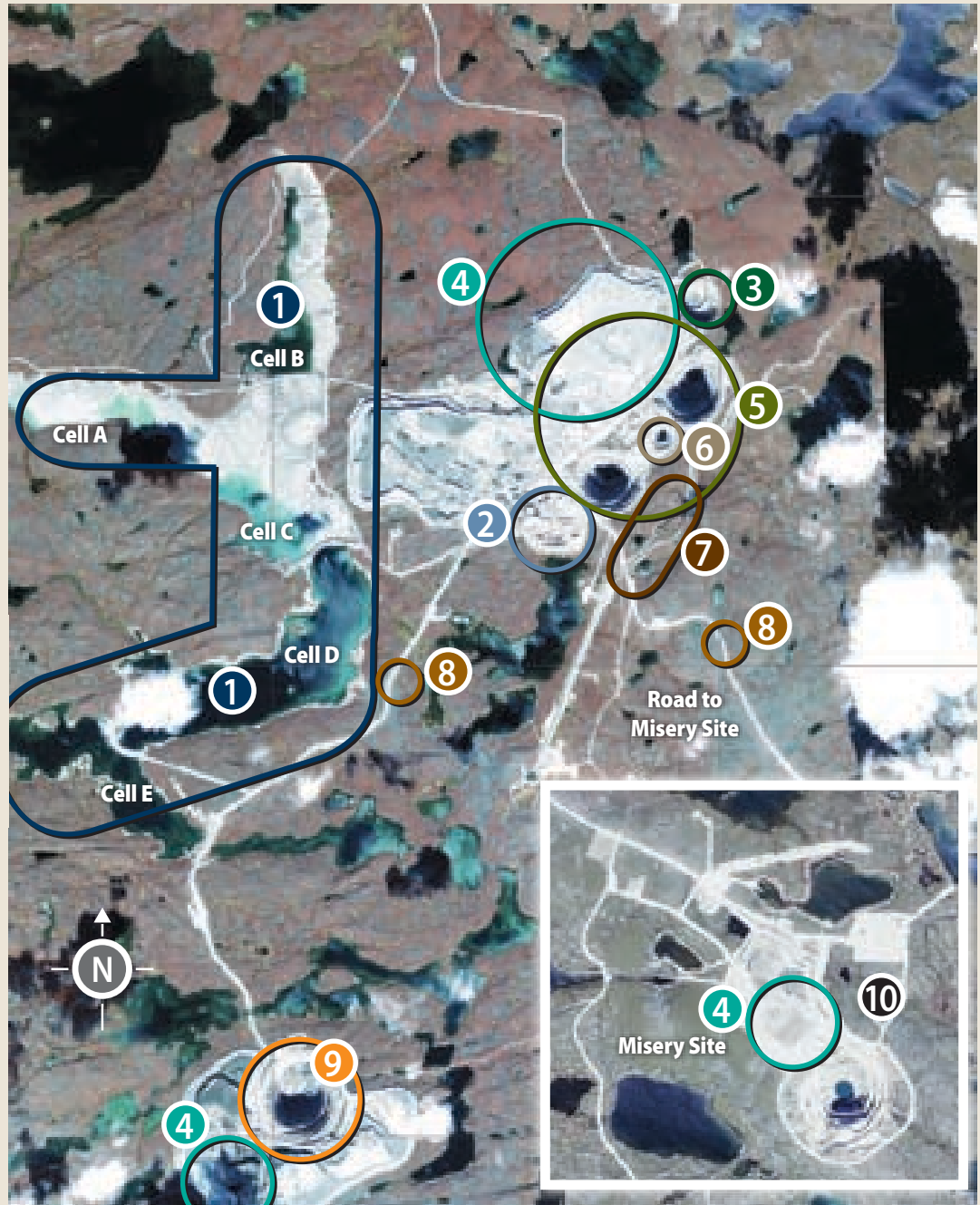
1 Long Lake Containment Facility (Tailings Pond)

The Long Lake Containment Facility (LLCF), holds the crushed wet *kimberlite* that remains after diamonds are removed. It is a lake split into five sections by dykes so the *processed kimberlite* can settle. Water is eventually released into lakes downstream when it is clean and pollutants are below the water licence limits.



2 Main Camp

This area includes: an accommodation building for hundreds of workers; a power plant; a truck shop; and a processing plant where the diamonds are removed from the *kimberlite*.



SATELLITE IMAGE 2007/BHP BILLITON DIAMONDS INC.



3 Beartooth Pit

BHPB has just finished mining ore from Beartooth Pit. The company has a request in to store mine water in the pit.



4 Waste Rock Piles

Rock that does not contain diamonds is piled in layers up to 50 metres high.



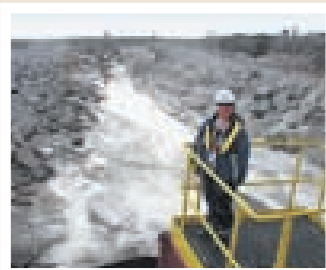
5 Panda and Koala Pits

Open pit mining has finished here and underground mining is now underway.



6 Underground Mining

BHPB has built one large underground tunnel to provide access to the bottoms of the pits. A conveyor belt system takes the ore to the processing plant.



7 Panda Diversion Channel

This is a man-made stream to divert water that would otherwise flow into the pits. Fish, mostly grayling, use it for spawning.



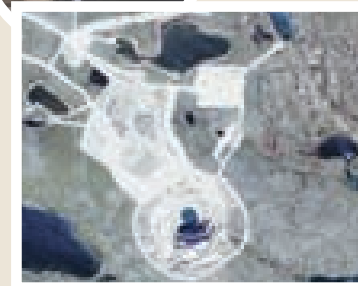
8 Haul Roads

BHPB has built all-weather roads to connect the pits to the main camp. BHPB carefully applies dust suppressant to the roads to make sure that it does not seep into the lakes and streams.



9 Fox Pit

This is the biggest pit at Ekati and most open pit mining activity is happening here.



10 Misery Site

BHPB has stopped mining at Misery Pit. It may re-open the site in a few years.

TOP PHOTO COURTESY OF JIRI HERMANN/BHP BILLITON DIAMONDS INC.

HIGHLIGHTS:

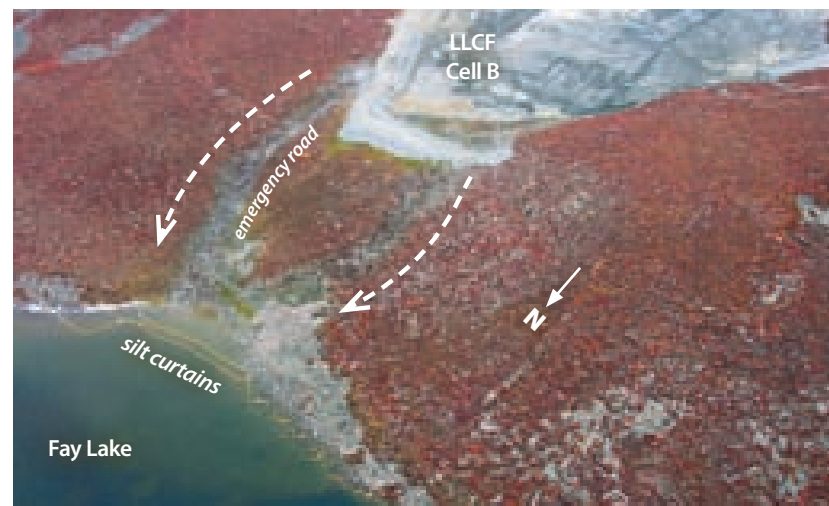
- Clean-up of spill on Fay Lake done well by BHPB.
- Beartooth Pit proposed to store mine water.
- Regulators worked together well on the Fay Lake spill.
- BHPB stopped releasing water from the LLCF until *nitrate* fell to safe levels.

Processed Kimberlite and Wastewater Management

Escape of Tailings from Cell B

On May 16, 2008, a BHP Billiton (BHPB) employee flying into Ekati saw a flow of *kimberlite tailings* from the north end of cell B of the Long Lake Containment Facility (LLCF). The company quickly looked at the problem. The *tailings* (called PK for *processed kimberlite*) flowed across 180 metres of tundra and then onto the ice of Fay Lake. The amount of *tailings* that escaped has not been reported.

BHPB responded right away. The discharge from the mine was relocated. A berm (mound of rock) was



Fay Lake processed kimberlite spill.

built to hold back the flow. The company notified the Department of Indian Affairs and Northern Development (DIAND), Department of Fisheries and Oceans (DFO) and other concerned groups and agencies. A temporary

road was built and the PK was moved by trucks back to cell B. Barriers were set at the edge of the lake to stop any more flow.

DIAND inspectors visited the site, took water samples, and watched the progress

of the cleanup. In November 2008 DIAND wrote to BHPB saying that the company had violated two conditions of the water licence. BHPB had failed to contain the *tailings* and had not done regular inspections before the spill happened. DIAND asked for a promise of better monitoring and prevention. This warning letter also asked about the cause of the spill and what would be done to avoid another spill.

BHPB responded that the cause of the spill was not found. The company agreed to monitor the whole containment facility every day. It would build a new road in 2009 to make inspections easier. In addition, a water diversion structure would be built to keep water-borne *tailings* away from the shore.

Nitrates and Chloride

Ekati is doing more underground mining. This means the mine water being discharged into the LLCF has changed. The mine water

includes more *nitrates* and chloride. BHPB has been working on how to lower these levels.

Usually the water in cell E forms layers and the top layer has a stable, low level of *nitrates*. Therefore the water discharged into Leslie Lake has a safe level. By the end of

this year, though, the *nitrate* levels in Leslie Lake were too high. Because of this, cells D and E were not pumped down as far as usual. BHPB delayed discharge from the LLCF until a safe *nitrate* level was reached. Cell E will be watched carefully in 2009. If there is clean water on the

top, then discharge will be done in the summer.

In 2008 BHPB experimented by adding phosphorus to the *tailings* water. This should reduce the *nitrates*. A second round of adding phosphorus is planned for cell D in 2009.

Recently, BHPB has proposed a new way to

Regulators visit to Fay Lake spill September 2008.



deal with high chloride and *nitrates*. In December 2008, the company asked the WLWB for a change in its Wastewater and *Processed Kimberlite* Management Plan. BHPB wants to use Beartooth Pit to store mine water, especially from underground mining.

The pit would be used to store mine water until the mine closes. The closure plan calls for the pit to be flooded. BHPB thinks that storing mine water in Beartooth now does not require any change to the closure plan. They assume that the water with too much

chloride and *nitrates* would remain at the bottom of the pit. According to BHPB, this would mean that the quality of water flowing out of the flooded pit would meet the licence criteria.

Agency Comments

Except for the Fay Lake spill, discharge of *tailings* into the LLCF went as planned. Discharge alternated between cell A and cell B.

Tailings Spill

BHPB's quick response to the Fay Lake spill was excellent. Unexpected events can always happen, and

fast action can make a lot of difference. It is also good that the company reported the problem to the government regulators and Aboriginal leaders.

It is too bad that the cause of the spill has not been found. This shows us that there are more things to learn about storing *tailings* in the arctic. How stable will this material be when the mine is closed?

The prompt and thorough work of the DIAND inspector after the Fay Lake incident was also excellent.

Careful follow-up is needed to stop erosion of the temporary road and to promote plant growth in the spill area.

Nitrates and Chloride

We are pleased to see BHPB is working on controlling *nitrates* in *tailings*. The extra chloride is a harder problem. We are not comfortable with the use of Beartooth Pit to store mine water. This request is currently before the WLWB. The board has asked BHPB for more information about impacts on permafrost under and near the pit area.

We are concerned about losing the chance to use Beartooth to dispose of extra-fine *processed kimberlite* (EFPK) at closure. EFPK erodes very easily and does not settle. The company's current plan to keep EFPK in cells C and D may not work out. An empty pit seems a more reliable way to deal with this material. This issue will be discussed in 2009. ■

Regulators visit in September 2008.



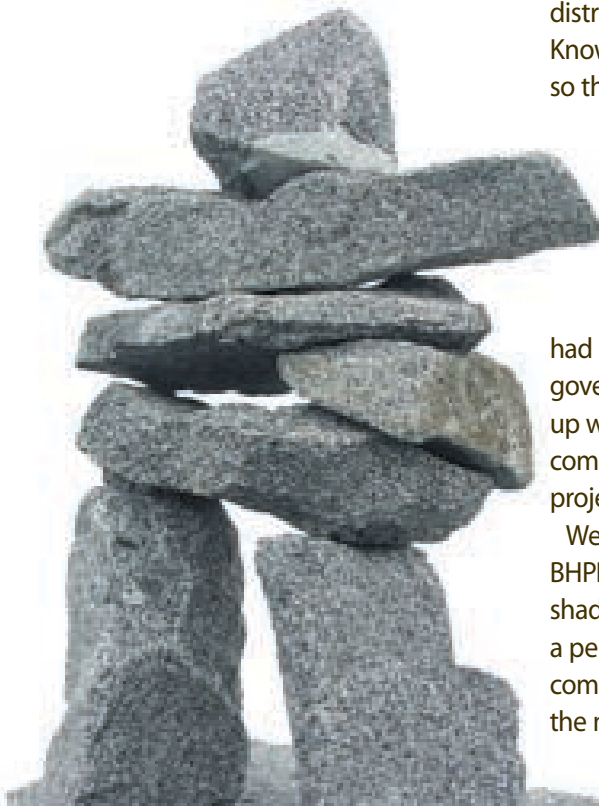
North end of LLCF looking south.



HIGHLIGHTS:

- The federal government has started to develop requirements for Traditional Knowledge use in water and fish monitoring plans for industries like mines.
- BHPB is going to communities to find out what Traditional Knowledge projects could be done to help improve environmental monitoring of land and water.
- The Agency recommends that BHPB write a report that reviews all the Traditional Knowledge used by BHPB in its monitoring and problem-solving.

Traditional Knowledge

**Activities in 2008-09**

BHP Billiton (BHPB) did not distribute any Traditional Knowledge (TK) reports so the Agency is unable to provide any updates on TK projects. BHPB has reported that it held several community workshops over the last year and had invited the Aboriginal governments to come up with new ideas for community-based TK projects.

We have also learned that BHPB started a new job-shadowing program where a person from each of the communities worked with the mine's environment



Cranberries.

department staff for a short time. This program created opportunities for information-sharing and capacity-building within the communities. This project is expected to continue in 2009.

The Department of Indian and Northern Development (DIAND) has started to develop TK requirements for water and fish monitoring. DIAND created a small group, including the Agency, which

met for the first time in February 2009. This group is looking at how TK has been used elsewhere and what we can learn from that experience.

An Agency director attended the Environmental

Lutsel K'e elder.



Lutsel K'e visit September 2008.



Monitoring Advisory Board's (EMAB) workshop in Kugluktuk in March 2009. The workshop looked at EMAB's proposal for a monitoring program using TK. The proposal is to set up camps near Lac de Gras for about 10 days during the spring and fall migrations of the Bathurst caribou herd. Most people at the workshop felt there should be a camp for each community, with the location and funding to be decided later.

The Agency believes that with the right monitoring, the proposed TK camps could

help answer questions such as how far caribou may stay from the mines, direction of travel for the caribou, how caribou react to mine activities, and which plants are eaten by caribou.

Agency Assessment

The *Environmental Agreement* for the Ekati Mine says that the Agency should review BHPB's monitoring reports and make recommendations concerning how the company uses TK in protecting and monitoring the environment.

The Agency has watched the progress of TK studies funded by BHPB. These projects include:

- a) Naonaiyaotit Traditional Knowledge Project (1996-2009) – a mapping and land use study with the Inuit of Kugluktuk;
- b) Lutsel K'e GIS Project (2000-2004) - running a computer-based mapping project in the community of Lutsel K'e;
- c) Caribou and Roads Project (2002 to the present) –

biologists working with elders from Kugluktuk to provide advice on how caribou and other animals may react around the mine; and

- d) Fish Monitoring (2007) - TK holders from each community using their knowledge of fish to help biologists sample fish to check for any deformities, eroded fins, sores or unnatural growths.

BHPB has also used TK in problem-solving and running the mine. For example, Aboriginal employees helped to free a caribou that was caught up in some wires at the mine site.

It is not clear to the Agency what BHPB has learned from all the TK studies and discussions it has had over the years with community people. We think that everyone would benefit from a report that described the TK that the company has used in running the mine, solving any problems, and planning for when the mine closes. ■

HIGHLIGHTS:

- During 2008, there was no DNA sampling of wolverines.
- BHPB and Diavik will work more closely together on future caribou monitoring.
- The company will suspend the upland breeding bird surveys. An analysis and review of data already collected will be done.
- The Agency took part in a review of the diamond mine wildlife monitoring programs to make sure that improvements are made.

Wildlife

Wildlife Incidents

BHP Billiton (BHPB) has worked hard to reduce wildlife incidents and keep wildlife out of areas of danger. Nine wildlife deaths were caused by vehicles in 2008 (five Arctic hares, two ground squirrels, one fox and one ptarmigan). Ten other wildlife deaths happened on the mine site (one caribou, one wolf, three foxes, one hare and four birds). No rabies was found in wildlife at the mine.

During 2008, there were sightings of 66 caribou groups, 62 grizzly bears, 55 wolves, 40 wolverines and 174 foxes at the mine site; some involve the same individual observed more



Caribou.

than once. Most of the foxes seen were red fox, which is a change from the mid-1990s when Arctic fox were more common.

Caribou

In 2008, surveys from the air counted 5,367 caribou in

the Ekati study area between June 15 and October 11. The highest numbers were in mid-July and mid-October. This year's data supports the conclusion that the number of caribou increases farther away from the mine. High snow banks and heavy truck

traffic decrease the chance that caribou will cross a road.

In 2009, BHPB will work with Diavik to put greater effort into studies of caribou behaviour. The companies will share helicopters and staff for aerial caribou monitoring.

Grizzly Bear

Grizzly bear sign surveys in 2008 concluded that distance from the mine is not important to grizzly bears. The study is done by searching for sign inside an area that is 1 km across. It has been noted that this may not be the best way to find changes in bear use of the land. BHPB has proposed that the bear sign survey be replaced with a better way of monitoring.

Wolf.



Wolf

Each year den sites are checked to find out if wolves are affected by the mine. Only two of 16 known dens were being used in June 2008. No wolves were seen at these two dens in August. A new den with three pups was seen to the north of the mine site.

Wolverine

BHPB continues to try to reduce incidents with wolverines. However, there were more wolverine sightings and incidents in 2008 than in 2007 and 2006.

In 2005 and 2006, BHPB and three other mines took part in a wolverine DNA study. Results showed that it was a good way to find how many wolverines there were in the area. During 2008, no DNA sampling was done.

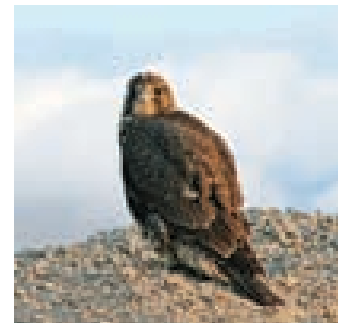
A snow track survey was done by helicopter in April 2008. A helicopter was used, because staff had not been trained to do the survey by snowmobile. No wolverine tracks or animals were seen.

Birds

Surveys of upland breeding birds at Ekati continued in 2008. There was no overall change.

Falcons are still nesting on pit walls, even though BHPB tries to discourage it in pits where there is mining. Surveys with the GNWT found that a high number of known nesting sites were used by peregrine falcons, but there were not many young. A pair of gyrfalcons nested near the Misery site and had three young. Peregrine falcons nested and raised three chicks at the Fox Pit, even though it was actively mined during the nesting period.

Young Gyrfalcon.



Agency Comments

Overall we are pleased with the monitoring program and the report. It is good that some of our past suggestions have been included.

One main disappointment is BHPB's wolverine monitoring. The DNA inventory was designed as a base to be compared to future data expected to be collected every second year. No further DNA studies are mentioned in the wildlife plan. The helicopter snow track count was again conducted in 2009, and is supposed to be planned for 2010, but we do not believe that is a good way to measure population changes over time and the influence of the mine on wolverines. Other researchers and regulators agree with us.

We recommend that BHPB, working with the GNWT, start DNA monitoring again in 2010. All areas in the study area should be sampled. The snow track count for wolverine should be discontinued. ■

HIGHLIGHTS:

- Some contaminants (*nitrates*, molybdenum, selenium and chloride) continue to be of concern to the Agency due to possible effects on fish.
- Fish samples in some lakes downstream of the mine have found unexpected traces of contaminants and parasites in fish.

- The regulators are working on targets for water quality and setting pollution limits. This work will also include the use of Traditional Knowledge.

Water and Fish

How BHPB Monitors the Water

2008 is the 11th year that BHP Billiton (BHPB) has monitored the water and the tiny plants and bugs that live in the water, to see if the mine is affecting them. BHPB samples the water in lakes and streams near the mine and downstream all the way to Lac de Gras in summer and winter. These results are compared to water in lakes and streams that are not affected by the mine. BHPB has found that its mining does change the water downstream of Ekati, but the changes are not likely to cause harm to fish.

Potential sources of



Grayling captured from the Panda Diversion Channel.

pollutants to the water at Ekati include:

- Treated sewage from the camp;
- Fuel and chemicals used to blast rock and run equipment;
- Crushed rock left over after the diamonds are removed from the pits; and
- Salty underground water that seeps into the pits.

BHPB pumps all the dirty



Panda Diversion Channel.

water and the crushed wet *kimberlite* to the Long Lake Containment Facility (LLCF). This is where the dirty water settles and is filtered through dams that BHPB built to divide the lake into smaller parts called 'cells'. Once the water reaches the end of the LLCF, it is ready to be pumped into the natural lakes downstream of Ekati (see Figure 1).

BHPB can only pump water into the lakes downstream of Ekati if the water is clean. The amount of pollutants in the water, such as dirt, metals and salt from mining in the pits must be less than the limits set in the water licence.

New Monitoring Programs and Studies

June 2007 saw the start of monitoring of over 900 m² of new fish habitat built in the fall of 2005 by BHPB in a stream that flows from Nero Lake into Nema Lake. This habitat is meant to replace fish habitat destroyed during construction of the bridge over the stream. Twenty spawning grayling were seen on the new habitat and grayling young were sampled. Next year's monitoring program will report on whether the new habitat is working well.

The Agency is expecting next year to see results of

Fish capture box on the Panda Diversion Channel.



a study into effects size. This study will look at what should be considered as the acceptable changes to water quality and fish caused by the mine. The company will need to work with all the communities to look into this question.

The limits of acceptable changes will serve as targets and help set early warning signs for the company. This will allow the company to take early actions to change how it operates the mine or handles any polluted water from the mining operations. A special plan (called the Watershed Adaptive Management Plan) will be developed to set out targets for water quality and what actions will be taken when early warning signs are found through the water and fish monitoring. BHPB's plan aims to control the changes to prevent harm to fish and other life in water. The Agency is disappointed with how long it is taking to develop this important plan for the Ekati Mine.

Figure 1: Aquatic Monitoring at Ekati



2007 and 2008 Monitoring Results

As in previous years, the Aquatic Effects Monitoring Program continues to give very good and useful results. At this time, there is no evidence that the mine is having any bad effects on the fish and bugs living in the lakes and streams downstream of the mine. However, there are chemical changes in the water that the Agency is concerned about.

In 2007 in both Leslie and Moose lakes, the amount of *nitrates* in the water increased

above levels that might be harmful to life in the water. *Nitrate* levels declined in both Leslie and Moose lakes in 2008, although *nitrates* continued increasing in winter. The Agency is pleased that in 2008 BHPB held back water within cell E until *nitrate* fell to safe levels, before pumping water downstream.

Molybdenum is a metal that affects trout eggs at high concentrations. In Moose Lake, molybdenum continued increasing in 2007 but decreased in 2008, as it did in Leslie Lake. BHPB had

expected this to happen as mining has stopped at Misery pit which was the largest source of molybdenum. Molybdenum levels under ice continued to increase above levels safe for fish eggs, which is still a cause of concern to the Agency.

The metal selenium in water can cause deformities in baby fish, reproductive problems and liver damage. Selenium levels declined in 2008 compared to 2007 when it reached levels that could cause problems for fish in Leslie, Moose and Nema lakes. The reason for the sharp increase in 2007 is unknown.

Salts continued increasing in 2007 and 2008 in Leslie, Moose and Nema lakes, although the increase had slowed in Leslie by 2008. High copper levels continue to be a concern in the lower end of the Panda Diversion Channel.

Overall, *nitrates*, molybdenum, selenium and chloride salts downstream of the LLCF

continue to be of concern to the Agency, because of possible problems under ice for fish eggs and baby fish.

In 2008, there was a lot more arsenic in the bottom mud of Kodiak Lake and the furthest lakes downstream of the mine (Slipper and Lac de Gras). The same results were found in lakes far away from the mine. The cause is unknown.

Oxygen in the water under the ice of Cujo Lake decreased through the winter of 2008. The oxygen fell to unsafe levels for fish by March 28, 2008. It is not known whether this oxygen decline is caused by mining at Misery. BHPB pumped air into the lake beginning on April 2 so that by May 3 oxygen was back to levels needed by fish in the upper part of Cujo Lake.

The population of water fleas that whitefish eat in Moose and Nema lakes in 2007 was back to levels seen before mining started. The numbers of water fleas

Grayling sampling from the Panda Diversion Channel.



found in 2008 dropped to the levels seen in the period from 2002-06. However, the same population decline was also found in two lakes not affected by the mine, so the cause is not known.

Results from the 2007 fish monitoring (last studied in 2002) downstream of the mine found:

- More tapeworms in slimy sculpin in lakes closer to the *tailings* pond than those further away; and
- Whitefish and trout in Leslie Lake are showing evidence of having been exposed to petroleum contaminants.

A special study of fish in cell E was started in August 2008 to find out the cause of tapeworm and petroleum contamination found in fish closer to the *tailings*. This study should be finished in 2009.

Traditional Knowledge (TK) was used in fish monitoring for the first time in 2007. Aboriginal people looked at the physical condition of fish in lakes downstream of the

mine. This work found that whitefish and lake trout were in generally good condition, with very few parasites.

We are pleased that BHPB is taking seriously the unexpected presence of contaminants in Leslie Lake fish by doing some special studies.

Water Effects Monitoring Guide for Mining

In 2006, the Department of Indian Affairs and Northern Development (DIAND) began developing a guide for mining companies as to what is expected in planning monitoring of water. A draft guide was sent out for review in September 2008. The draft guide does not consider ground water monitoring and is not yet adapted to the Arctic environment. Another major concern of the Agency, and others, was the lack of information regarding the use of TK in developing water monitoring programs and plans. DIAND then set up a small group, including the

Agency, to look into ways of using TK in water monitoring. The Agency expects this work will improve water monitoring and mine operations.

Water Quality Standards for the Northwest Territories

DIAND is also working to set up water quality standards across the Northwest Territories. These would be used to set targets for water

quality and help in setting of pollution limits for mines and other developments. The Agency is pleased that this important work is progressing.

The lack of water quality standards was probably the single most important issue during the recent water licence renewal of the Sable, Pigeon and Beartooth operation at Ekati. ■

Tailings discharge point into the LLCF.



HIGHLIGHTS:

- WLWB decided to combine the two water licences for the Ekati Mine in September 2008.
- A public hearing was held on a renewal of the water licence for the Sable, Pigeon and Beartooth pits.

- Agency thanks WLWB for good, but at times long, process for the water licence renewal.

Sable, Pigeon and Beartooth Water Licence Renewal

Introduction

There are two water licences that cover the Ekati Mine. The main water licence covers the original mining operations at Panda, Koala, Misery and Fox pits and was first issued in 1997. BHP Billiton (BHPB) applied for an expansion of its mine in 1999 to allow mining at Sable, Pigeon and Beartooth lakes. This was approved in 2002 and another water licence was issued for these additional pits. The Sable, Pigeon and Beartooth (SPB) water licence expires in August 2009 so the company applied for a renewal in March 2008. This is the story of how that renewal process went.



Sable, Pigeon and Beartooth water licence public hearing March 2009.

Timeline and Issues

Feb. 08 – BHPB proposes changes to the SPB water licence.

Mar. 08 – BHPB applies to Wek'èezhii Land and Water Board (WLWB) for renewal of licence and land use permits.

May 08 – WLWB rules renewal exempt from

environmental assessment.

Sept. 08 – WLWB decides to bring together the two water licences that cover the Ekati Mine.

Nov. 08 – WLWB hosts technical meetings to review licence application and asks for information.

Jan. 09 – BHPB provides new information and a draft combined licence.

Feb. 09 – BHPB holds a meeting to review new information it submitted in Jan. 09.

Mar. 09 – Public hearing held in Behchoko.

Agency issues still to be resolved

- Provide for fish passage in Pigeon Stream Diversion in the water licence;
- Need to address BHPB's part in *cumulative effects* on Lac de Gras;
- Need to keep air quality monitoring in the water licence;
- Need for BHPB to do more work to set limits for chloride discharge at Ekati; and
- Need to know how mine water from the Sable Pit will affect Horseshoe Lake.

Agency Comments

- The SPB licence renewal process was a long review of issues but was

well managed by the WLWB. The Agency, and federal and territorial governments, pushed to combine the two water licences for the Ekati Mine. The decision to combine the water licences will make future inspections and reporting easier. The public hearing went smoothly because of the advance work of the WLWB staff;

- We are concerned about the limited Aboriginal participation in this process. This is a continuing problem;
- We are concerned about the time and energy spent by all parties in recommending waste discharge limits. This was made more difficult by the lack of information; and
- We recommend that DIAND and the WLWB complete work on water quality standards well before the 2013 water licence renewal for the entire Ekati Mine. ■



Beartooth Pit.

HIGHLIGHTS:

- Improved air quality program implemented in 2008, but few results provided.
- New air management plan submitted March 2009.
- Air monitoring building moved to a central location for more accurate readings.

Air Quality

Activities 2008-09

BHP Billiton's (BHPB's) Air Quality Monitoring Program (AQMP) was reviewed by the Agency, Environment Canada (EC), and the Government of the Northwest Territories (GNWT). In 2008, BHPB changed the plan and fixed some problems found by the reviewers.

The results of the program are reported every three years. We are disappointed that the report for 2006-08 has not been submitted. We can comment only on the preliminary results.



Continuous air quality monitoring building (new location).

Air Emissions and Greenhouse Gas Calculations

The main sources of air pollution at Ekati are the ore crusher, power plant, vehicle traffic, mining, and burning waste. Emissions are

reported to EC each year.

In 2008, greenhouse gases were slightly lower than in 2006 and 2007. BHPB has a number of projects to lower fuel use and minimize emissions.

Continuous Air Monitoring

The continuous air monitoring building was moved in 2008. It is now at the Polar Explosives site and began taking readings in October. The new site is downwind of generators and most mine site sources. The company brought in experts to make sure the equipment was working properly.

Ekati has adopted the Canadian Ambient Air Quality Objectives as emission targets. In 2008, monthly averages were reported as below the federal and territorial air quality limits. More information is expected in the 2008 AQMP report when it is submitted.

High Volume Air Sampling (HVAS)

The HVAS takes in large amounts of air at a steady rate and filters any particles in the air. It operates every six days from May to October. There are two samplers working now at Grizzly Lake and cell B.

In 2008, the average reading at Grizzly Lake was three

times higher than in 2007. At cell B, the average was six times higher than in 2007. All of the measurements were far less than the GNWT daily maximum, except for two events at cell B.

No explanations were given for the increases or the two times when GNWT limits were passed. We suggest that BHPB discuss this issue in its full report.

Dust Fall Monitoring

Since July 2006, dust has been measured along the roads of the mine site. In 2008 additional dust fall monitors were added at a distance of 1 km from the road to test whether dust really does settle out to that point.

Results show that more dust is found along the Fox haul road. Dust levels are high right next to the road, but are less as you go farther away. There was an exception in July 2008 along the Fox haul road. There, dust levels did not settle to background levels by the 1 km mark.

There are no guidelines in the NWT for amounts of

dust. The monitoring results, however, show that BHPB's dust suppression efforts have had some positive results.

Snow and Lichen Sampling

In 2008, a new improved snow and lichen sampling program was conducted. Sampling sites were located near the mine and farther out in straight lines. This will measure effects over distance. A new species of lichen preferred by caribou was added to the sampling list.

At the time of writing this report, we have not received the results of this program. We will comment on them next year.

Agency Comments

In March 2009, BHPB put out an updated Air Quality Management and Monitoring Plan, as recommended by the Agency. The company has committed to review the plan every three years or when there are changes in technology or site use. We are pleased with this progress. We urge BHPB to

discuss the program changes during community visits and ask for input on air quality issues to further improve the monitoring program.

Our main concern is still the potential for high levels of dust around the mine. This could have negative effects on water, plants and wildlife particularly caribou. In 2006 BHPB seemed to indicate that they would study the monitoring programs to find if there are links between dust and air quality and the effects on lichen and caribou. This analysis is still not reported in BHPB's studies.

Two years ago BHPB bought a new incinerator. We are disappointed that, as of this writing, it is still not operating.

This past year GNWT's air quality specialist left his job. This person had an important and very helpful role in getting the company's AQMP updated. We trust that the GNWT will fill this position soon, so there will be no gap in overseeing the AQMP implementation. ■

HIGHLIGHTS:

- BHPB has made real progress on getting a good closure plan in place.
- Disagreement on BHPB's proposal not to restore the pit lakes to allow for use or travel by fish.
- BHPB filed a legal motion questioning the right of the WLWB to require pit lake restoration for use by fish.
- For wildlife, BHPB moved toward a site-wide approach to measuring the success of closure work.

Closure Planning at Ekati

Activities 2008-09

The main action this year was to update the closure plan. The plan that was approved in 2002 is out of date. BHP Billiton (BHPB) has worked on a new plan for the last few years. It is now in the final stages of review and approval.

In 2007 the WLWB set up a working group (everyone was invited to help but it was mainly government agencies, BHPB and the Agency) to review the new plan. The group suggested some ways to improve it, and BHPB submitted a revised plan in December 2008. With a few more changes, this plan will



Waste rock piles.

go to public hearings in the summer of 2009.

No actual *reclamation* happened at the mine site in 2008. BHPB still says it has a progressive *reclamation* policy. This should mean that as parts of the project are

completed, action is taken to return the land to a good state. However, *reclamation* work at two sites was put off again. These sites are Old Camp and Phase 1 *tailings* facility.

Agency Comments

The Agency takes pride in the work we have done to help improve closure planning at Ekati. We feel that our reviews and ideas have resulted in a much better closure plan.

We are disappointed, though, that the company has not made more progress on closing parts of the mine as they are no longer needed. BHPB's Life of Mine Plan shows that most *reclamation* will not be done until operations are completed. This is unfortunate.

On the closure plan, BHPB has made real progress. This was aided by the working group process started by the WLWB. We still have two concerns about the plan. One is the proposed option for the open pits. The second concern is if the *reclamation* research plans are detailed enough.

Pit Lakes and Fish Habitat

In the closure plan, BHPB says that it is not required to restore pit lakes, or cell E (fish are still in cell E), so they can

be used by fish or have fish pass in and out. However, all the other members of the working group support the aim of a healthy fish population in the pits after closure.

BHPB is taking a step back from the 2002 approved closure plan. That plan says, "a productive post-closure lake will be developed." It also says that the shallow zone will include fish refuge and spawning areas. The company has recently agreed to plant the shallow-water edges around pit lakes.

BHPB now argues that it made earlier arrangements with the Department of Fisheries and Oceans (DFO). The company believes these agreements mean that any loss of fish habitat has already been paid for. Therefore, BHPB does not have to restore fish habitat at closure.

It is our view that agreements with other regulators do not change the ability of the WLWB to require a closure plan that allows for fish in the pit lakes. We wrote

to the WLWB several times in 2008 to urge that it direct BHPB to change its approach to closure of the pit lakes. We asked for construction of shallow areas with plants to help fish return to the lakes. We also wrote a draft of how the plan could be changed to allow fish use of the pit lakes.

Because of this dispute, BHPB filed a legal motion. It questions the WLWB's power to require that fish habitat be created in the pit lakes. The WLWB is expected to decide on this issue before the hearing on the plan itself later

this summer of 2009.

Reclamation Research

Sometimes there is more than one way to restore land and water. Research is needed to find out which is the best method and how to measure it. The new closure plan includes 26 research plans.

The WLWB working group has spent a lot of time reviewing the research plans. Some improvements have been made. There are still some questions to deal with:

- Some research plans do not have enough detail; and

Revegetation test plots.



- Some important research would be done too late to be useful.

Because of these concerns, the WLWB directed the company to work on the detail of two of the research plans. Then these two plans can be models for improving the other research plans. The two improved research plans will be reviewed at the summer 2009 public hearing.

We are concerned about one more issue with the closure plan. BHPB has recently changed its approach to wildlife use of the mine after closure. Instead of having goals for each part

of the mine, the company is changing to goals that apply to the whole mine site. It is the company's view that meeting a goal in any area of the mine site is good enough. We disagree. The proposed wildlife monitoring program, for example, is not designed to tell us how animals are being affected by the reclaimed mine components. Therefore, site-wide measures do not meet the goal of the closure plan and there should be specific goals for the different parts of the mine. This is an issue that should be dealt with at the public hearing in the summer of 2009. ■

Near the old camp.



Issues with Revised Reclamation Research Plans

Research Problem 1

What to do with very fine *kimberlite tailings* (EFPK). EFPK is like liquid clay. It is a little thicker than milk, flows quickly, and is easy to disturb. The old closure plan calls for leaving the EFPK in the bottom of ponds, expecting it might get solid after a long time. The information we have now does not show that this will happen.

BHPB Research Idea

The company said it would review research on this subject. It would also use these results and some computer modeling to figure out what might happen and if experiments at the mine site are needed.

Agency Concerns

Storing the very fine *kimberlite tailings* at the mine site needs to be studied through experiments, not just review of previous work and research. The closure plan gives no details about how an experiment would be done. Details are needed and experiments started now.

Research Problem 2

Replanting vegetation on the Long Lake Containment Facility.

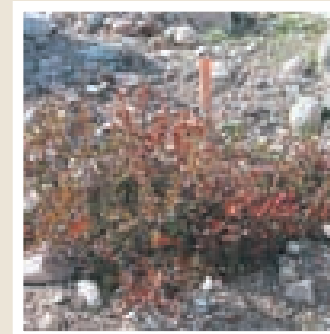
BHPB Research Idea

The company will do a large-scale study in cell B from 2013 to 2019.

Agency Concerns

This pilot study needs more details and more ways to measure success. For example, a goal of the study should be to find the best plants that can live the longest on the *tailings*. How do we know when the plants can replace themselves and survive? The Agency wants to see study of different plant species, how much the plants will build up, how much area will be covered, and the cycle of plant nutrients. ■

Revegetation test plots.



HIGHLIGHTS:

- Two special studies to be released in spring 2009 on caribou and *cumulative effects*.
- Need better wildlife monitoring to allow for study of *cumulative effects*.

- Little or no progress on Environmental Management Framework or the Multi-Project Environmental Monitoring Agency.



Caribou cow
and calf.

Regional Monitoring and Cumulative Effects

Government regulators are making some progress with trying to address *cumulative effects* and in regional monitoring of caribou. In February 2009, we took part in the Government of the Northwest Territories' (GNWT) Bathurst Caribou Management workshop. In spring 2009, two reports will be released. One analyzes the zone of influence of caribou distribution around the mines. The other is a pilot project looking at *cumulative effects* of development and changes in the summer range of the Bathurst caribou.

BHP Billiton (BHPB) and Diavik working together on air surveys of caribou will

help regional monitoring. The two mines are so close together, they are like one larger disturbance. The diamond mines should think about working together on other wildlife programs, like grizzly bear monitoring. With future development of the Sable road and pit, the air survey area for caribou should include these areas. We also suggested that the survey area needs to go out to 30 km south of Diavik.

We urge the GNWT to work with BHPB and other companies to develop a large scale regional dust and lichen monitoring study to see if there are any impacts on caribou.

The Environmental Management Framework (EMF) held a meeting in February 2008. By the summer of 2008, there was to be an update to the 2002 Slave Geological Province Regional Action Plan. We have not seen a draft of this report. There seems to be no progress.

In 2008, the terms of reference were completed for the Multi-Project Environmental Monitoring Agency. There has been no progress on approving them or putting them into action. ■

HIGHLIGHTS:

- Regulators are still effective.
- WLWB held a useful review and approval process for the SPB water licence.
- DIAND has been careful in inspections and work on the Fay Lake spill.
- DFO was steady and made good use of outside experts.
- GNWT and EC could improve.

How are the Government Regulators Doing?

The Regulators and Our Mandate

We are the public watchdog for environmental management at Ekati. We watch not only BHP Billiton (BHPB), but also how the federal and territorial regulators are doing their jobs. Here are our comments on the regulators in 2008-09.

Overall Comments

In our view, the regulators are doing a good job in making sure that BHPB operates an environmentally sound mine. We were pleased to see that all regulators were willing to work together and share resources.



Fall colours near Fay Lake.

Department of Fisheries and Oceans (DFO)

DFO played a key role in the Sable, Pigeon and Beartooth (SPB) licence renewal process. DFO was also active in the

closure plan process. They defended the idea of making the flooded pits into lakes that can be used by fish. We commend DFO for its strong level of interest on Ekati, as well as for using effective

outside experts – especially on chloride toxicity and tapeworms in fish.

Department of Indian and Northern Development (DIAND)

We are pleased with DIAND's inspection work over the last year. We also noted the quick response on the Fay Lake spill. DIAND took part in the SPB water licence hearing. They also played a key role in talks about water quality and effluent quality goals. DIAND should focus on developing water quality objectives for the NWT.

Environment Canada (EC)

During the SPB process, EC provided good background on the history of regulating Ekati. In other reviews, EC did not take part. This is unfortunate. We would like to see EC take part more often.

Government of the NWT – Environment and Natural Resources (GNWT)

The GNWT was not a strong

part of the closure plan review last year. Territorial government departments should take a greater part in mine regulation in the future. The GNWT should fill the vacant position of air quality expert as soon as possible. GNWT is doing a good job on wildlife *cumulative effects*, though. We look forward to seeing the results.

Remediation of Fay Lake spill.



Wek'èezhii Land and Water Board (WLWB)

This past year the WLWB has become a mature and responsible regulator. The WLWB and its staff have been doing a good job on a difficult task.

The WLWB has managed timely reviews of BHPB's technical reports. They held

a smooth hearing on the SPB water licence and successfully handled combining the two water licence for the Ekati Mine. The board's staff is technically strong, but they are also willing to hire outside experts when needed. We are pleased with the WLWB's performance. ■

HIGHLIGHTS:

- BHPB continues to run Ekati in an environmentally sound way.
- BHPB reacted well to the Fay Lake *tailings* spill.

- The lack of wolverine DNA sampling is disappointing.

Assessment of BHP Billiton

BHP Billiton (BHPB) still operates the Ekati Mine with environmental responsibility. We give the company high marks overall for the way they work with us and the regulators.

We were pleased to see the progress on the closure plan since the draft in 2007. Despite promises of further changes, we still have a few concerns. There needs to be progress in *reclamation* during the life of the mine. There is also a need to move forward quickly with research.

The one major issue we have is BHPB's proposal to use permanent fish barriers on pit lakes and cell E. This is a change from the 2002



Ekati main camp.

approved closure plan. BHPB is unwilling to ensure self-sustaining fish habitat at closure. It is likely this matter

will be resolved at public hearings.

BHPB has proposed some changes to wildlife

monitoring for 2009. We support the diamond mines working together on wildlife. We agree with most of the proposed changes. However, we are disappointed there was no wolverine DNA sampling in 2008 or 2009. We strongly urge that DNA sampling take place in 2010. We also believe there should be an overall review of wildlife monitoring at all the diamond mines. We are willing to work with BHPB and others to make this happen.

The company has a strong commitment to air quality and greenhouse gas monitoring. To help reduce air pollution further, BHPB needs to get its new incinerator working.

BHPB responded well to the Fay Lake *tailings* spill. This includes their quick communication to regulators as well as clean-up. We note the need for careful attention to erosion of the emergency road.

In our last annual report, we

were concerned that BHPB's environmental reports were often late. Our position is still the same. Delivery dates for reports should be included in the Environmental Agreement.

BHPB plans to use Environmental Impact Review meetings to tell Aboriginal communities of changes to the air quality plan. We would like BHPB to not just inform the communities,

but to discuss possible improvements with them. We urge the company to continue to work with communities. They are crucial to long-term care of the environment. ■

Agency visit to Ekati in September 2008.



Agency Recommendations for 2008-09

Recommendation

1

DIAND and WLWB, along with other related bodies, should work together with Aboriginal governments and other interested parties to develop scientifically defensible Water Quality Standards for the Northwest Territories. As this work could contribute towards the review of Effluent Quality Criteria in the water licence for the Ekati Diamond Mine, it needs to be completed well before 2013.

WLWB Response: With respect to Water Quality, in January 2008, the full MVLWB (i.e., the MVLWB and all three regional panels) established the “Standard Procedures and Consistency Working Groups” one of which (working group 3 chaired by Kathleen Racher) was mandated “to develop an approach for creating clear and consistent policy and procedures for deriving water/effluent quality criteria for water licenses”. Based on the information obtained, the working group has just finished its first draft of a Water and Effluent Quality Management Policy that will soon go before the

full MVLWB for discussion. This policy is intended to describe how the land and water boards make decisions that will affect water quality in the environment – for example, in the setting of discharge limits for effluent. Once the policy is approved, working group 3 will begin developing specific guideline documents that are required to implement the policy. The working group envisions several cycles of internal and external review of the draft policy during the course of 2009 and hopes to have it approved by the full MVLWB by the end of this year.

DIAND Response: The paper entitled ‘Towards the Development of Northern Water Standards: Review and Evaluation of Approaches for Managing Water Use in Northern Canada identifies a series of tools and options for managing water quality conditions in northern Canada, including establishment of uniform water quality standards, establishment of uniform or industry-specific effluent quality criteria (EQCs), and establishment of project-specific effluent quality criteria. This paper recommends a multi-stepped approach to the development of effluent quality criteria, with the first step being the establishment of ambient water quality objectives (WQOs).

INAC recognizes that the development of clear guidance for determining WQOs and effluent quality criteria is important for regulatory improvement. Funding

constraints will affect the pace at which we proceed on this issue. In 2009-10, INAC will begin to determine WQOs for the Slave River, as part of transboundary water negotiations with Alberta. The principles and steps of such a process could be applied across the NWT and contribute to the development of a consistent and clear process for the determination of water quality objectives and subsequent effluent quality criteria for industrial projects in the NWT.

BHPB Response: BHPB would support and participate in, as part of a working group that includes the diamond mining industry, an NWT-wide initiative to develop a scientifically defensible process for developing Water Quality Objectives for diamond mines. An inclusive process would work towards enrolment and acceptance by all stakeholders. ■

Recommendation

2

The Agency recommends that GNWT-ENR take the lead in coordinating the diamond mines wildlife monitoring program review, including a workshop in Fall 2009 to review program objectives and study designs.

BHPB Response: GNWT-ENR currently takes a proactive and practical approach to the regular reviews of the wildlife monitoring programs for the EKATI Diamond Mine.

GNWT-ENR Response: GNWT-ENR will convene and lead a workshop in Fall 2009 to review the project objectives and study designs of the wildlife monitoring programs for all three diamond mines and

GNWT monitoring programs and studies in the area. The results of this workshop will be conveyed to the monitoring agencies and parties to the *Environmental Agreements* to ensure that reviews and amendment to existing programs are conducted with a full understanding of the strengths, weaknesses, gaps and opportunities within current programs. ■

Recommendation

3

BHPB should carry out the wolverine DNA sampling program in 2010.

BHPB Response: BHPB has been in dialogue with the GNWT-ENR and the other diamond mines around the scope and size of this program based on our experience from implementation of the first program. We shall continue in discussion with the aim to being involved in the program in 2010.

GNWT-ENR Response: Based on research to date, DNA hair

snagging is clearly the most effective technique for monitoring demographic changes and estimating wolverine abundance. GNWT-ENR agrees with the recommendations that all three diamond mines continue DNA sampling as the standard technique for detection of potential impacts to wolverine populations, as soon as possible. ■

Recommendation

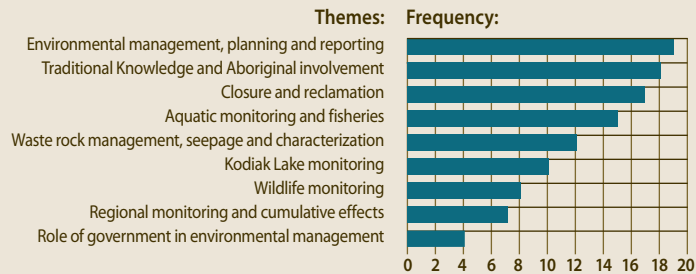
4

BHPB should carry out and make public a 10-year review of its use of Traditional Knowledge (TK) in its environmental plans and programs. This review should document how the company has given full consideration to the incorporation of TK into environmental plans and programs, the successes and lessons learned from the TK Studies, and what changes or improvements in adaptive management can be attributed to TK.

BHPB Response: BHPB recognizes the importance of the inclusion of TK into our practices and designs and that this is a fundamental component of the *Environmental Agreement*. There are a number of past and current successes in which BHPB is proud to have played a part. At this time BHPB continues

to invest its resources into working with the communities in which it operates to develop new, forward-looking TK initiatives. This approach inherently incorporates past experience in a constructive manner that is clearly focused on benefitting the development of new initiatives. ■

Agency Recommendation Themes 1997-2009



Recommendation Recipient	Frequency of Recommendations
BHPB	80
Government (GNWT, GN, Government of Canada)	13
Water Boards (NWT Water Board, MVLWB, WLWB)	8
Environmental Agreement signatories	3
Aboriginal Society Members and BHPB	3
Aboriginal Society Members	1
All Agency Society Members	1
Total 109	

Independent Environmental Monitoring Agency (back row, left to right): Audrey Enge, Jaida Ohokannoak, Tony Pearce, Bill Ross, Laura Johnston; and (front row, left to right): Scott Duguid, Kim Poole, Tim Byers, Kevin O'Reilly.



Glossary

Consultation

Written notice, adequate preparation time, and consideration of the views presented by the community.

Cumulative Effects

The environmental changes that occur from a project or activity combined with effects from other human activities.

Environmental Agreement

Created as a legally binding instrument to provide monitoring and input into management practices not covered by other authorizations.

Kimberlite

A rare, potentially diamond bearing iron and magnesium rich rock from deep in the Earth's mantle. Kimberlites are generally found as vertical pipe-like structures.

Nitrate

A nutrient, like a fertilizer, derived from nitrogen.

Processed Kimberlite

The waste and water mixture that is left over after the mill removes the diamonds. Also referred to as tailings.

Reclamation

The recovery to viable ecosystems of areas of land and water bodies that have been disturbed during mining.

Tailings

The waste material and water mixture that is left over after the mill removes the diamonds from the ore. Also referred to as Ekati as processed kimberlite.



Acrynomns

- AQMP** Air Quality Monitoring Program
- BHPB** BHP Billiton
- DFO** Department of Fisheries and Oceans
- DIAND** Department of Indian Affairs and Northern Development (also known as Indian and Northern Affairs Canada or INAC)
- DNA** Deoxyribonucleic Acid
- EC** Environment Canada
- EFPK** Extra-fine Processed Kimberlite
- EMAB** Environmental Monitoring Advisory Board
- EMF** Environmental Management Framework
- EQC** Effluent Quality Criteria
- GNWT** Government of the Northwest Territories
- HVAS** High Volume Air Sampling
- ICRP** Interim Closure and Reclamation Plan
- IEMA** Independent Environmental Monitoring Agency ("the Agency")
- LLCF** Long Lake Containment Facility
- MVLWB** Mackenzie Valley Land and Water Board
- NWT** Northwest Territories
- PDC** Panda Diversion Channel
- SPB** Sable, Pigeon and Beartooth
- TK** Traditional Knowledge
- WLWB** Wek'èezhii Land and Water Board
- WQO** Water Quality Objectives



■ NORTHWEST TERRITORIES
 ■ NUNAVUT



A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE™



Independent Environmental Monitoring Agency

Plain Language Annual Report 2008-09

How To Reach Us

In Person

Suite 203
5006 Franklin Avenue
Yellowknife NT

By Mail

P.O. Box 1192
Yellowknife NT
X1A 2N8

By Telephone

(867) 669-9141

By Fax

(867) 669-9145

By E-mail

monitor1@yk.com
Or visit our website:
www.monitoringagency.net

Office Hours

Monday to Friday
9:00 a.m. — 12:00 p.m.
1:00 p.m. — 5:00 p.m.

Directors

Bill Ross

Chairperson
269 Edgebank Circle
Calgary AB T3A 4V8
Phone: (403) 547-0415
E-mail: ross@ucalgary.ca

Tim Byers

Vice-Chairperson
Box 1049, Teulon MB R0C 3B0
Phone/Fax: (204) 886-4642
E-mail: Byerses@escape.ca

Jaida Ohokannoak

Secretary-Treasurer
P.O. Box 2366
Cambridge Bay NU X0B 0C0
Phone: (867) 983-2153
E-mail: jaida@polarnet.ca

Audrey Engge

92 Hordal Road
Yellowknife NT X1A 3N4
Phone: (867) 873-2117
E-mail: audreysenge@hotmail.com

Laura Johnston

611-16th Avenue North
Creston BC V0B 1G5
Phone: (250) 402-0036
E-mail: laurajo@shaw.ca

Tony Pearse

RR1 – S6, C – 9
Mayne Island BC V0N 2J0
Phone: (250) 539-3015
Fax: (250) 539-3025
E-mail: tpearse@gulfislands.com

Kim Poole

2305 Annable Road
Nelson BC V1L 6K4
Phone: (250) 825-4063
Fax: (250) 825-4073
E-mail: kpoole@aurorawildlife.com

Office Staff

Kevin O'Reilly
Manager

Scott Duguid
Environmental Analyst



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