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16 July 2012

Dear Doug;

Subject: DDMI submission of the 2011 Environmental Agreement Annual Report

Diavik Diamond Mines Inc. (DDMI) is please to submit the 2011 Environmental Agreement Annual Report (EAAR), as required under Section 12.1 of the Environmental Agreement (EA).

A draft copy of this report was submitted for review to the Environmental Monitoring Advisory Board (EMAB) staff and Aboriginal Affairs and Northern Development Canada (AANDC) on 20 June 2012. As per the EA, the report is to be submitted by 30 June each year. EMAB staff advised DDMI that they would likely be unable to submit comments in advance of the 30 June deadline, due to other activities that were being carried out. It was agreed that the report due date would be revised to 16 July 2012, and a request was subsequently sent to, and supported by AANDC staff.

We trust that the attached report addresses the comments received on the draft version.

Please do not hesitate to contact myself (867.766.6610) or David Wells (867.766.5400, ext 5536) if you have any questions or require further information.

Yours sincerely,



Colleen English
Superintendent, Sustainable Development,
Communities & External Relations

cc. Charlotte Henry, Environmental Scientist, Environment & Conservation, AANDC
Nicole McCutchen, Manager, Wildlife Research & Management, GNWT-ENR
Mark Fenwick, Executive Director, EMAB

Communities & External Relations Department

Diavik Diamond Mine

2011 Environmental Agreement Annual Report

16 July 2012

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Executive Summary

Diavik writes this report every year to give an update to the communities and to the Parties of the Environmental Agreement (the Agreement). Article 12 of the Agreement states that the report must be written, and it outlines what must be included. Each year Diavik also meets with the people in the communities around the mine, to talk about this report and what it says. In early 2012, Diavik met with communities to discuss general environmental performance, which included information about the 2011 Environmental Agreement Annual Report.

Diavik and the Environmental Monitoring Advisory Board (EMAB)

The Environmental Agreement is a document that was written and signed on March 8th, 2000. It is made up of several parts, which talk about the responsibilities of Diavik, Aboriginal organizations, and the federal and territorial governments. More importantly, it is an agreement between everyone regarding what Diavik is to do while operating the mine so that the environment is protected. It also says that an advisory board needed to be formed - this is why EMAB was created and is separate from Diavik or the other groups that signed the Agreement.

EMAB, as a Board, is made up of one representative from each of the parties that are part of the Agreement. There are also some issues that reach across boundaries (such as water quality and wildlife) and because the Environmental Agreement recognizes this, the Government of Nunavut has a representative that sits on EMAB. The parties that are part of the Agreement are listed in Table 1.

Table 1: Parties of the Environmental Agreement

Tlicho Government (formerly Dogrib Treaty 11)	Yellowknives Dene First Nation
Government of Canada	Kitikmeot Inuit Association
North Slave Metis Alliance	Lutsel K'e Dene First Nation
Government of the Northwest Territories	Diavik Diamond Mines

EMAB has several duties - some of them include reviewing Diavik's environmental plans, reports and programs and making recommendations in many different areas related to the environment, Aboriginal Parties and community participation, Traditional Knowledge (TK), and other topics. The Board works with Aboriginal Parties and communities so that they can give Diavik advice about environmental monitoring and programs.

This report has summaries from environmental reports that Diavik prepares for various monitoring programs. There are also sections on activities at Diavik, public concerns, a comparison of environmental effects to what was predicted, new ideas that Diavik is looking into, and a summary of inspections at Diavik by the INAC Inspector.

The Diavik Diamond Mine and the Environment

Diavik Diamond Mine is built on East Island, a small island near the east end of Lac de Gras. The diamonds at Diavik are found in kimberlite (a dark-colored rock) pipes, just off the shores of East Island in Lac de Gras. Lac de Gras is a 60 kilometer long lake and is about 300 kilometers northeast of Yellowknife. The lake typically freezes up in October, and thaws in July. It empties into the Coppermine River.

In the area around the Diavik site there are grizzly bears, wolves, wolverines, foxes, arctic hares, arctic ground squirrels, red-backed voles, brown lemmings, rock ptarmigan and other birds. The Bathurst caribou herd travels through this area during the spring and fall migration, although large numbers of caribou do not typically go onto East Island.

Large dikes are built in the lake, and the water inside them was drained so the diamonds beneath that part of the lake can be mined. The first dike (A154) was completed in 2002 and mining started in 2003. Construction of the second dike (A418) was started in the summer of 2005, completed in 2006 and mining began there in 2007. The dikes are numbered to match the names of the kimberlite pipes inside them. A third kimberlite pipe called A21 is also located in Lac de Gras next to East Island. Diavik constructed an underground tunnel to the A21 kimberlite in 2006, but no mining has been done there. In 2008 Diavik decided to put the A21 project on hold.

The year 2011 was the ninth year that Diavik was in operation. Right now, Diavik is using open pit and underground mining to recover diamonds. This means that rock and kimberlite are being removed from the surface open pits and the remaining kimberlite underground. During 2012, Diavik will complete the open pits and will only mine kimberlite from underground. Kimberlite that is removed from the pits and the underground, is taken to the processing plant in large trucks, where it is crushed and the diamonds are separated using x-rays.

Diavik is like a small community - there is a main camp with accommodations, dining rooms, offices, water and sewage treatment plants, a waste facility, maintenance shops, a power plant and an airstrip. A 350 kilometer ice road is built every winter so that supplies can be brought to Diavik and other mines and camps in the region. Fuel, cement, building materials, trucks, equipment, camp supplies, and other items are brought up every year on the winter road. During the rest of the year, supplies are brought to Diavik by air.

Environmental Management

Diavik has an Environmental Management System, also called EMS, to help monitor and improve environmental performance. The EMS system at Diavik is certified to a standard called ISO 14001, which is recognized around the world. Activities at the mine (building the dikes, hauling rock, running a power plant, even flying in and out of the mine) have impacts on the environment, and the EMS helps to minimize these impacts.

The EMS system includes procedures for operations, environmental plans and programs like the ones listed later in this report, and tools like communication plans and environmental records that must be kept. It is simply an organized way to ensure 'continual improvement' - this is what an EMS is built on. Results from monitoring, projects and research are reviewed by Diavik employees, communities and regulators, to check how well the programs are working. These results are then used to look for ways to improve how things are done in the future. There is a table at the end of this report (Table A2, Appendix A) that shows many parts of the environment that Diavik manages. These include waste, water, hazardous materials, wildlife, dust, and greenhouse gas emissions.

In order to keep the certification to the ISO 14001 standard, Diavik's EMS has to be audited regularly and this was done in 2011. In August 2011, Diavik had what is called a surveillance audit. This audit is conducted by external auditors and is used to verify that Diavik is complying with the ISO 14001 standard. External audits are when third party experts (people that have nothing to do with Diavik) check the EMS system. The August 2011 audit found that the Diavik EMS meets the ISO 14001 standard and allowed Diavik to keep its certification.

Adaptive Management

The Agreement indicates that Diavik's environmental management plans and programs shall be part of adaptive environmental management where applicable by including adaptive environmental mitigation measures.

There are currently no specific guidelines related to adaptive management for the mining industry in the north, however, Diavik's management plans and programs do follow a structure of continuous improvement through a cycle of plan-do-check-act, where changes may be made based on the results received; this is the overall premise of adaptive management. Some examples of adaptive management at Diavik include:

- Several changes to dust sample locations and air quality monitoring based on results received from sampling;
- Special Effects Studies that are initiated when effects are measured during the Aquatic Effects Monitoring program (discussed later in this report); and,
- Changes to the way some wildlife monitoring programs are completed based on results from previous years of monitoring results.

Monitoring Programs

The main part of this report has details on Diavik's plans and programs that are used to check how healthy the environment is in the area around the mine. Below is a short summary of results from 2011 monitoring that Diavik did in each area.

Wildlife & Plants

Under the Environmental Agreement, Diavik conducts a wildlife monitoring program, as outlined in its Wildlife Monitoring and Management Plan (WMMP). This program was created to collect information about habitat, birds and animals in the area to see if they are affected by the mine. Results are often compared to Environmental Assessment predictions. Here are some notes about 2011.

- At the end of 2011, the total amount of habitat lost due to mine development was 9.71 square kilometers (km²). The total amount lost to date is below the amount predicted from the Environmental Assessment.
- Similar to the total habitat loss, there was a slight increase in habitat loss for caribou in 2011, but no caribou deaths or injuries occurred due to mining activities. There were a couple of predatory kills found not too far from the mine site – one beside the airstrip, one off the A154 dike and one by the A21 area.
- Caribou aerial surveys were suspended during 2011 due to Diavik reviewing aerial survey objectives and due to concerns from community members related to disturbance from helicopters. Past data have shown a zone of influence (area in which animals may be affected by mine activities) around the mine that is larger than originally predicted. Surveys are planned to resume in 2012.
- Caribou behavioural observations/scans (ground-based) were conducted a total of 104 times in 2011, covering distances from less than 2 km to greater than 30 km from mine infrastructure. Data have shown that behaviour of caribou without calves appears to be more closely linked to weather and insect activity. Caribou groups with calves tend to increase their time spent feeding/resting as they move further away from the mine.
- Road and rock pile surveys were conducted 59 times. Caribou were required to be herded away from mine infrastructure three times during 2011. There was a herd of 200 caribou on the southwest side of the island from 7 to 27 October 2011.
- Similar to the total habitat loss, there was a slight increase in habitat loss for grizzly bear but total loss remains below that predicted.
- No bears were killed, injured, or relocated during the year. Bears were reported on East Island 56 times in 2011, with one family of 3 bears frequenting the area.
- DDMI suspended hair snagging monitoring for grizzly bear presence within the Diavik wildlife study area for 2011 in order to look into a new method for hair collection in 2012.
- Wolverines were present on East Island in 2011 and were seen on East Island 4 times. There were no mine-related wolverine deaths in 2011.
- Diavik conducted wolverine snow track surveys in 2011 with a community assistant; 27 tracks were seen. Diavik also participated in the regional wolverine DNA program conducted in cooperation with the GNWT and BHP-Billiton. In the Diavik area during 2011, there were a total of 18 individuals (9 males, 9 females). The next round of DNA sampling is planned for 2014, depending on results from the GNWT.
- No raptors were observed nesting on the high wall of the open pits in 2011. No falcons died because of mine operations in 2011.
- Analysis over time showed that the mine is not influencing the locations of raptors within the study area, and that activity levels at the mine are not a strong deterrent to nesting falcons. Annual changes in nest success were not related to the level of activity at the mine site. The next regional raptor survey will be in 2015.

- There were no more shallow or deep water areas developed in 2011, therefore the total area of water habitat loss is still within the predicted amount. Waterfowl were seen at the East Island shallow bays and the waterfowl are still using the ponds that have been changed by the mine on the Island.
- Waste inspections continued to be done every other day during the year 2010. Food and food packaging were found during 11% of inspections at the Waste Transfer Area and 31% of the time at the inert landfill. This was similar to previous years. Environment staff continues to educate workers on the importance of segregating waste properly.

In addition to continuing on-going monitoring programs, Diavik has participated in a joint review process of the diamond mine wildlife monitoring programs over the past few years. This process continued throughout 2011 and included technical and communities workshops with representatives from the three diamond mines (Diavik, EKATI and Snap Lake), each of the Monitoring Agencies (EMAB, IEMA and SLEMA), the Government of the Northwest Territories (GNWT) department of Environment and Natural Resources (ENR) and the communities. Reports or minutes were sent on each meeting and they included a summary of recommendations on what could be changed with the monitoring programs.

Air Quality (Dustfall & Emissions)

Environment department staff continued to monitor dust around the mine site in 2011, like in other years. Snow surveys are done every spring. The sampling for this part of the program includes melting the snow to test water chemistry and the amount of dust. Dust particles are also collected and checked to see if there are patterns in the amount and location of dust near the mine.

As predicted, dust deposits are greater closer to the mine operations and lessen further away from the mine. The rate of dust being deposited was affected by activities in the area, as well as by wind direction.

The overall amount of dust measured since 2001 (including 2011) has exceeded that predicted from the modelling in the Environmental Effects Report (1998). The predictions were based on ambient air quality criteria at the time and did not take into account construction periods that increased during the 2005 monitoring season and continued through 2006 to 2008, the periods in which the highest rates were generally measured. Dust deposition during 2011 decreased a bit in some areas and increased a little in other areas when compared to previous years; it also decreased with distance from the mine, as predicted.

Snow water chemistry analyses (measurements of chemicals in the water from melted snow) indicate that the concentrations of regulated parameters (the chemicals in the Water License that Diavik must keep below set levels) measured in 2011 were all below the maximum allowable concentration outlined in the Water License.

Diavik sprays water on roads around the mine site during the dry summer months to reduce the amount of dust generated by the mine. As of 2009, Diavik operates an enclosed crusher

with a dust control system that is designed to reduce the amount of dust that will settle on the ground from crushing.

In 2008, Diavik began working with air quality experts to conduct air quality modelling for the mine site. Modelling uses specific information like weather data, dust data, the amount of diesel used and the types of equipment used at the mine to estimate air emissions. Modelling was completed during the Environmental Assessment for the Diavik project before mining began. Diavik realizes that some important things have changed since the Environmental Assessment (for example, more construction has been done than was originally expected) and therefore, new modelling was completed during 2011 to review air quality again. An Environmental Air Quality Monitoring Program document will be submitted to the GNWT-ENR, Environment Canada and EMAB for review during 2012.

Each year, Diavik calculates the quantity of greenhouse gases it generates based on actual fuel used and reports this to regulators; in 2011, the amount stayed similar to 2010 and totalled 199,000 tonnes of CO₂e. Greenhouse gases are produced many different ways. At Diavik, the use of diesel (for equipment, power generation and heat) is the main source of greenhouse gases.

Aquatic Effects (Lake Water Quality & Fish Health)

Diavik continued to do the Aquatic Effects Monitoring Program (AEMP) in 2011. This was the ninth year of aquatic effects monitoring, and it is required for Diavik's water license. 2011 was the fifth year since the AEMP was changed to include three separate open water sampling events (July, August, and September) as well as the ice covered session conducted in April and early May. A three-year review of the program was done in 2011 and efforts to develop a Traditional Ecological Knowledge monitoring program for fish and water began in 2011 and will continue in 2012.

Data gathered from the AEMP has identified effects on Lac de Gras related to mine activities. Small changes in water chemistry (quality), sediment chemistry (quality) and benthic invertebrates (small animals that live in the lake sediment) have been measured, mostly resulting from an increase in nutrients. In general, these changes are more noticeable near the mine (near-field sampling locations) than at distances further from the mine (far-field sampling locations). Diavik conducted some fish sampling on lake trout at various areas in Lac de Gras and Lac du Sauvage to follow up on concerns over the possibility of slight increases in mercury levels in fish tissue. Results from 2011 monitoring showed a slight increase in the amount of mercury since 1996. This increase has occurred in both Lac de Gras and Lac du Sauvage (upstream from the mine), so it is not likely linked to mine operations.

Reports Written by Diavik

During 2011 and early 2012, Diavik sent many reports and operating plans to regulators such as the Wek'èezhìi Land and Water Board, the Department of Fisheries and Oceans, Aboriginal Affairs and Northern Development Canada and Environment and Natural

Resources. The main part of this report gives a summary of each of these other reports and plans.

Operations Activities

During 2011, Diavik produced 6.7 million carats of diamonds, compared to about 6.5 million in 2010 and 5.6 million in 2009 (due in part to the temporary shut down in 2009). Overall it is expected that Diavik production will continue to decrease over the next few years.

In early 2011, essential equipment, supplies and fuel for the annual re-supply were brought to site on the winter road which was open from January 28 to April 1.

Declines (tunnels) continued to be built during the year so that crews could work underground at the A154 and A418 kimberlite pipes. Although Diavik is underground mining at A154 and A418, exploration and mining activities at a third kimberlite pipe, A21, has been put on hold.

In 2011, Diavik announced that construction of four wind turbines would occur at the mine site. The project, which includes four 2.3 megawatt wind turbines, is expected to be operational for winter 2012/13. Diavik's wind turbines, which will be the world's first to operate at minus 40C, will reduce our reliance on diesel fuel and lower our carbon footprint.

Public Concerns

Diavik received communication from the Environmental Monitoring Advisory Board during the year and a summary of this communication (as well as Diavik's responses) can be found in the main part of this report.

A complete list of community visit details is provided in Section 6.2 of this report. Meetings were arranged through the Tlicho Government, Kitikmeot Inuit Association (KIA), Yellowknives Dene First Nation (YKDFN), Lutsel K'e Dene First Nation (LKDFN) and the North Slave Metis Alliance (NSMA). Diavik did not receive communication directly from the public related to environmental issues in 2011.

Technology

During 2011, Diavik continued investigating new technology to use at the mine site. Using wind as a source of energy has proven possible for the near future and Diavik is putting up four wind turbines during 2012. With the help of a community assistant, preliminary archaeological assessments were conducted in September 2010 in areas identified as potential base sites for wind towers. The wind turbine project was discussed with regulators and communities during 2011. This is a unique project for the north and there are many technical challenges. This is a good example of industry trying new technology that could then possibly be used in communities as a way of lowering the amount of fossil fuels used throughout the North.

Diavik began installation of new incinerators in 2011. The engineering designs were completed, foundation excavated, buildings set up and incinerators put together. Work on

this project will continue, with the hope of switching over to using the new incinerators during 2012.

Diavik continues to look at different ways to possibly mine the A21 kimberlite pipe beneath Lac de Gras.

Environmental Monitoring Compared to Predictions

In Appendix B, there is a document called the Rolling Effects Summary. This part of the report talks about how the environmental monitoring compares to the predictions that were made for things like wildlife, vegetation, climate, fish and water. It looks at results from 2011 and past years compared to the original predictions.

In general, environmental monitoring has shown that impacts from Diavik have been below Environmental Assessment predictions, with the exception of elevated dust deposition levels and an increased zone of influence for caribou around the mine.

Compliance

In 2011, Diavik was in compliance with land leases and the water license. There were four incidents of short-term seepage where water leaks from structures. One location had two seepages with slightly elevated ammonia, zinc, nickel and pH values (1645-24, shallow bays), another had slightly elevated zinc values (2008-SEEP-01, shallow bays) and the fourth had slightly elevated zinc and nitrites (2011-SEEP-01, pond 2). Three of these reached Lac de Gras for a short period of time.

An Inspector from Aboriginal Affairs and Northern Development Canada (AANDC) visited Diavik to do inspections seven (7) times in 2011. Details of these inspections are also provided in the Summary of Compliance section of this report.

Environmental Monitoring

Table A1 in Appendix A at the end of this report contains a summary of the different kinds of environmental monitoring that was done at Diavik in 2011, as well as a short outline of activities and results. This table includes details about:

- Dust and Weather monitoring;
- Quantity and quality of water;
- Aquatic effects;
- Wildlife and wildlife habitat (vegetation);
- Fisheries; and
- Several university studies that are being done.

Diavik Diamond Mine Location Map



List of Acronyms (abbreviations found in this report)

AEMP	Aquatic Effects Monitoring Program
ARD	Acid Rock Drainage
ALDP	Aboriginal Leadership Development Program
CCME	Canadian Council of Ministers of the Environment
AANDC	Department of Indian Affairs and Northern Development
DDMI	Diavik Diamond Mines Inc.
EA	Environmental Agreement or Environmental Assessment
EAAR	Environmental Agreement Annual Report
EMAB	Environmental Monitoring Advisory Board
EMS	Environmental Management System
ENR	Environment and Natural Resources
GNWT	Government of the Northwest Territories
HU	Habitat Unit
AANDC	Aboriginal Affairs and Northern Development Canada
ISO	International Standards Organization
ICRP	Interim Closure and Reclamation Plan
MVLWB	Mackenzie Valley Land and Water Board
NIWTP	North Inlet Water Treatment Plant
NTU	Nephelometric Turbidity Units (measurement of water turbidity)
OLDSSF	On-Land Dredge Sediment Storage Facility
OPCP	Operational Phase Contingency Plan
PA	Participation Agreement
PK/PKC	Processed Kimberlite/Processed Kimberlite Containment
PVP	Permanent Vegetation Plot
QA/QC	Quality Assurance/Quality Control
SNP	Surveillance Network Program
SOP	Standard Operating Procedure
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WHMIS	Workplace Hazardous Materials Information System
WLWB	Wek'èezhii Land and Water Board
WMMP	Wildlife Monitoring and Management Plan
WTA	Waste Transfer Area
ZOI	Zone of Influence

Definitions

Abundance – a count or measurement of the amount of any one thing

Adaptive Management - a systematic way of learning from monitoring results or management actions with the intent to improve operating or management practices

Benthic Invertebrates – small bugs without a backbone that live in the sediments on the bottom of a lake or river; can include flies, worms, clams, etc.

Deposition Rate – the speed at which something settles on to a surface, e.g. how slow/fast a piece of dirt falls through water to settle on the bottom of a lake

Distribution – how any one thing may be spread out over an area

Effluent – cleaned/treated water from the sewage or water treatment plant that is discharged from the plant after cleaning

Enrichment – addition of an ingredient that improves quality; if too much is added, it may then start to reduce quality

Environmental Assessment – process to review potential environmental impacts for a project that is being considered for development and decide if the project can be developed

Eutrophication – water bodies like a lake receive a lot of nutrients and then start to grow a lot of plants within the water

Habitat Compensation – replacement of natural habitat lost during construction of the mine; done using man-made features to improve areas of natural habitat

High-level Effects – change noticed between different areas that may start to be higher than an agreed-up standard

Interim Closure & Reclamation Plan – a document that outlines ways to close a mine, including what needs to be done with water, land and wildlife. 'Interim' means that it is less detailed than a final plan, as there are still questions to answer before the final design or plan can be done.

Low-level Effect – early-warning level where little change is detected

Mitigation Measures – things that are done to control or prevent a risk or hazard from happening

Moderate Effect – some change noticed between different areas that may start to be higher than an agreed-up standard

Monitoring – a way to check on performance and compare it against an expected result, e.g. is anything changing

Parameters – chemical and physical signs that can be used to determine water or soil quality

Plume – an area in air, water or soil that is affected from a nearby source, e.g. a plume of smoke around an erupting volcano

Prediction – an educated guess of what will happen in the future, can be based on existing knowledge or experience where possible

Progressive Reclamation – starting to repair certain areas of land damage by mining activity while the rest of the mine is still operating; focus is on areas where mining activities are complete

Research – a structured way to test questions on unknown features of the environment, e.g. reasons why a change may be happening

Risk Assessment – a way to identify possible harmful effects by looking at how harmful the effect could be and how often it could occur. After risks have been identified, management actions are defined.

Sediment Chemistry – the mineral content of dirt particles that sit on the bottom of the lake

Seepage – a release of water or other liquid material that flows through or out of a containment area

Trophic Status – a measure of lake productivity based on how many plants are in the lake

Water Quality – an overall characterization of the chemical (nutrients or metals), physical (temperature) and biological (algae) features of water in a lake or river

Translations of the Executive Summary

The next 41 pages include the translations of the Executive Summary into Innuinaqtun, Dogrib and Chipewyan, as per the Environmental Agreement Article XII, Section 12.1, Item c, xiii.

Rio Tinto Wegodì

Diavik, ɬè xo tàt'e sɔmbak'è edaàni eghàlagiɬda wenɬht'è gehtsɪ t'à kòta xè gogedo, eyits'ò Parties of the Environmental Agreement (the Agreement) amèè xè ndè hoidì naàwò gítq sù xè gogedo ha hq't'e. Article 12 nɬht'è at'è wet'á nɬht'è hohle ha eyits'ò ayì wexè dek'èt'è ha sù dek'et'è ha hq't'e. Xo tàt'e, Diavik kòta gots'ò dɔ xè ɛgeèhdi, di nɬht'è at'è ghq gogede gha eyits'ò ayì dek'eht'è gho gogede gha. 2012 k'è, Diavik kòta dɔ xè edaàni ndè k'è eghàlageèda ghq ɛlegeadi, ekò 2011 xo gha Ndè Hoidì Naàwo Nɬht'è Environmental Agreement Annual Report ghq ɛlexè gots'ùdo ɬe.

Diavik eyits'ò Ndè Hoidì Dɔ dehkw'e (EMAB)

The Environmental Agreement Ndè Hoidì Naàwò nɬht'è k'è dek'eht'è hòlì eyits'ò edɪzì wek'è nègɪzɔq March 8th, 2000 xo k'è. Eyì nɬht'è k'è, Diavik, Dɔne Sɔɬ gha Eghàlaede Dɔ, Ndèts'ò K'aowoh-de eyits'ò Edzanè gha Ndèts'ò K'aowoh amèè ayì làà wets'ò hòlì dek'èht'è. ɛlexè yatì ts'èhɔq t'à Diavik sɔmbak'è et'è, ndè t'asawode ch'àà, ndè hoidì hq't'e. Eyits'ò dɔ gha k'èyageèti gha dɔ ɛlexè dèhkw'e hòlì - eyit'á EMAB hòlì, amèè dɔ ɛlexè yatì whets'ì xè wheda, whatsò dèhkw'e t'à eghàlageèda.

EMAB, dɔ ɛlexè dehkw'è, ɬè kò gots'ò dɔ ɬè wheda, haàni yatì hòlì k'è dek'èht'è. T'asì wehda aɬak'á weghq nanits'ede (tì xè dagòht'e eyits'ò tich'adi) eyits'ò eyì Ndè Hoidì Naàwò wet'á wek'èhodzɔ hq't'e, eyit'á Nunavut gha Ndèts'ò K'aowoh gha dɔ ɬè EMAB k'è wheda. Dɔ di hàtɬq ɛlexè yatì gehts'ì dek'èht'è.

Ndè Hoidì gha ɛlexè Yatì Gehɔq

Thchq gha Ndèts'ò K'aowoh (Treaty 11 ɬè)

Sɔmbak'è gots'ò Dɔne Sɔɬ

Canada gha Ndèts'ò K'aowoh-dè

Kitikmeot Inuit Association

North Slave Metis Alliance

Łutsel K'e Dene First Nation

Edzanè gha Ndèts'ò K'aowoh

Diavik Diamond Mines

EMAB t'asɪ ɪqɔ k'e eɬexè eghàlageèda hɔt'e – Diavik ndè k'è edaàni eghàlageèda t'à edexè sɪgoɛhɛ wɛnɪhtɪ'è hohɛ wek'è yageèhtɪ eyɪts'q edɪ eyɪts'q edaàni dɔne sɔɪ, kɔta eyɪts'q Dɔne Naàwò t'à ndè hoìdɪ t'à eghàlageèda ha gɪwɔ sɪ hagogedɪ ha hɔt'e. Board k'è dɔ eɬexè dèhkw'e, Dɔne Sɔɪ eyɪts'q kɔta eɬexè Diavik gha k'èyageètɪ hɔt'e.

Dɪ nɪhtɪ'è k'è, ndè hoìdɪ wegodɪ Diavik wetɪ'a sɪdla sɪ dek'èhtɪ'è. Eyɪts'q Diavik wexè edàgotɪ, dɔne t'asɪ ghɔ nanɪgedɛ, edaàni ndè xèidɪ ha sɔni ts'edɪ ɪɛ wets'eèda eyɪts'q Diavik naàwò gòò hageta eyɪts'q INAC gots'q sɔmbak'è k'aehta dɔ wetɪ'a Diavik sɔmbak'è wek'aetɔ dek'èhtɪ'è.

Diavik Diamond gha Sɔmbak'è eyɪtsq Ndè

Diavik Diamond gha sɔmbak'è East Island k'è hòɪ, ndɪ nechalea k'àbatsɔ ts'òne Lac De Gras k'è. Diavik, kimberlite kwè yɪ diamond gɪhɔq (kwè dèzɔ) k'àbats'q ts'òne Lac De Gras tabàà k'è. Lac De Gras tɪ 60 echɪ kilomɛtɛr haɪhdo sɪ, 300 echɪ kilomɛtɛr chɪk'èdà k'àbatsɔ ts'òne Yellowknife gots'q eyɪ wheɔq hɔt'e. October k'è nɪdè tɪ etɪ eyɪts'q July k'è nɪdè nàgoyɪ. Tɪ, Coppermine River gots'q nɪɪ.

Diavik sɔmbak'è gomɔq sahcho, dɪga, nòghà, nògè, gàhcho, dlò, dlɪa, k'àba eyɪts'q chɪa ɪqɔ kàza gòɪ. Bathurst ekwɔ eyɪ ndè k'è naeɔa, edàk'q eyɪts'q hat'q tà'te, haànikò ekwɔ ɪq East Island ts'q atɪ laàni le.

Tɪ wemɔq èɔa necha hòɪ, tɪ weyɪ hagɪhtɪ'ɪ, tɪ wetɪ'a diamond hagele ha. Dakwe èɔa (A154) hòɪ 2002 k'è eyɪts'q 2003 k'è kwè hàze xèhoɪwo. Wek'è èɔa(A418) ɪmbè 2005 k'è wexèhoɪwo, 2006 k'è weghɔ nɔgɪt'e eyɪts'q 2007 k'è kwè hàze xèhoɪwo. Edɪ gots'q kimberlite kwè hàze wek'èhodɔq gha èɔa eyɪts'q kimberlite kwè k'è wɪzɪ dek'èhtɪ'è hɔt'e. Tai t'à nɪdè, kimberlite kwè A21 hayeh Lac de Gras k'è, ndɪa gàà wheɔq. Diavik ndè gotɪ'a A21 kimberlite kwè gots'q goɔa agɪla 2006 k'è, haànikò kwè hàgɪla le. 2008 k'è, A21 k'è sàwa gots'q làà ghàhogeèhdɪ.

2011 k'è Diavik sɔmbak'è ɪqɔt'q xo etɛ adza. Dɪ, Diavik ndè goka eyɪts'q ndè gotɪ'a eghàlageèda t'à diamond kwè hàze. Ndè goka gots'q kimberlite kwè hàze eyɪts'q ndè gotɪ'a gots'o kimberlite kwè hàze hɔt'e. 2012 k'è, Diavik ndè goka eghàlageèda ghɔ nɔget'e ha eyɪts'q ndè gotɪ'a gots'q zɔ kimberlite kwè hàze ade ha. Kimberlite kwè ndè goka eyɪts'q ndè gotɪ'a gots'q hàze sɪ satsɔ bèhchɪ cho t'à kwè sɪzɪ kɔ gots'q agehɔɪ, eyɪ kwè nàgeède eyɪts'q nɪhtɪ'èchɪ x-ray t'à diamond kwè ɪchɪ hɔt'e.

Diavik kɔta nechalea laàni – nats'etekɔ, sèt's'ezekɔ, nɪhtɪ'è k'èhod kɔ, tɪ eyɪts'q tɪch'ɪ sɪzɪ kɔ, t'asɪch'ɪ ɪatɪ'o kɔ, satsɔ bèhchɪ sɪzɪ kɔ, satsɔ etɛ kɔ eyɪts'q nɪhtɪ'èt'a k'è gòɪ. Xo tàt'e, 350 echɪ kilomɛtɛr xo tɪlɪ hohɛ t'à Diavik eyɪts'q sɔmbak'è hazɔ gòla ts'q t'asɪ k'eze hɔt'e. Tɛ, ehdze kwè, kɔ goht'q, satsɔ bèhchɪ, satsɔ t'à eghàlats'eèda, t'asɪ haàni hazɔ xo tàt'e xo tɪlɪ t'à k'eze hɔt'e. Weɔq gots'q xo ghàà t'asɪ nɪhtɪ'èt'a t'à Diavik ts'q k'eze hɔt'e.

Ndè Hoìdì Xè Eghàlats'eèda

Diavik, Environmental Management System, EMS hayeh t'à eghàlageèda t'à ndè hoìdì t'à eghàlageèda eyits'q dèzq nezì ndè hoìdì t'à eghàlageèda gha edehogìhdi. EMS nìhtf'è t'à Diavik eghàlats'eèda sù ISO 14001 hayeh, eyì sù hazq nek'è wek'èhodzq hqt'e. Sqmbak'è làà lq̃q hohle t'à nàgoòde, (èza hohle, satsq̃ bèhchìcho, satsq̃ etlè, nìhtf'èt'à, t'asì haànì hazq ndè xèidì hqt'e, EMS t'à eghàlats'eèda t'à sù ndè wèidì ha le gha edehots'ìhdi.

EMS ndè hoìdì t'à eghàlats'eèda, ndè xè edexè sìgots'eèhᑭ eyits'q t'asì wehda di nìhtf'è k'è dek'èhtf'è, eyits'q t'asì ghq̃ elèxè gots'edo eyits'q ndè hoìdì t'à wenìhtf'è ìchì sù nezì wek'èhodì ha hqt'e. Ats'q̃ t'asì nìhtf'è gha wehoìdì t'à 'ats'q̃ nezì at'ì eyì naàwo k'è EMS hòlì hqt'e. T'asì wehoìdì, t'asì k'è eghàlageèda eyits'q t'asì hàgeeta wenìhtf'è hohle sù Diavik wechekè, kq̃ta eyits'q̃ naàwò ghàà eghàlaede dᑭ, nìhtf'è k'è ageèhta. T'asì wehoìdì wegodi ghàà, idàà edaànì t'asì k'è dèzq̃ nezì eghàlageèda wek'èhodzq̃ ade ha. Di nìhtf'è at'è welq̃ (Table A2, Appendix A) t'asì edàtlq̃ ndè k'è wehoìdì t'à Diavik eghàlageèda sù dek'èhtf'è. T'asich'ì, tì, t'asì wets'àhoòdzì, tìch'adi, ehtf'è k'èhts'ì eyits'q̃ lòòza yatì ts'q̃ at'ì haànì wegodi hazq̃ nats'ìgele hqt'e.

ISO 14001 ndè hoìdì t'à eghàlageèda gha nìhtf'è gìtq̃ ha nìdè, Diavik EMS t'à edaànì eghàlageèda sù ats'q̃ wek'aeta, eyit'a 2011 k'è wek'aetq̃ ìle. Nàkè wek'aeta, dᑭ ìlè goxè eghàlaeda xè eyits'q̃ dᑭ ìlè goxè eghàlaeda le xè wek'aeta, haànì wek'aeta ghàà t'asì Diavik ISO 14001 ndè hoìdì nìhtf'è ghàà eghàlageèda wek'èhodzq̃ hqt'e. 2011 k'è wek'aetq̃ t'à Diavik EMS ghàà eghàlageèda t'à ISO 14001 nìhtf'è gìtq̃ hqt'e.

Ndè Xè Eghàlats'eèda

Di haànì yatì dek'èhtf'è, Diavik ndè xè eghàlageèda t'à edexè sìgogeèhᑭ eyits'q̃ t'asì k'è eghàlageèda sù ndè edàtl'ì ghàà ndè xè eghàlageèda ha hqt'e.

Di dzeq̃, edzanè k'è sqmbak'è gòla gha, ndè edàtl'ì ghàà ndè xè eghàlats'eèda gha, weggha eghàlats'eèda nìhtf'è gòlì le, haànìkò, Diavik edaànì t'asì k'è eghàlageèda gha edexè sìgogeèhᑭ eyits'q̃ t'asì k'è eghàlageèda sù ats'q̃ wehoìdì eyits'q̃ wegodi ìchì t'à edì t'asì ladì agele ha sù wegodi ghàà ladì agehᑭ hqt'e:

- . edì ehtf'è hoìdì k'è gòzq̃ ladì agìlì eyits'q̃ edaànì nìhts'ì hoìdì ladì agìlì, wegodi nats'ìgele ghàà ladì agìlì.

- . T'asì ìlè kàza gha t'asì hoìdì t'à Tè T'asì Hoìdì k'è eghàlageèda (wegodi dek'èhtf'è) eyits'q̃,

- . Tìch'adi edaànì wehoìdì t'à eghàlageèda ìlè sù ladì agele ha, ìnèè wegodi nats'ìgele ghàà ladì ageèle ha.

T'asì Hoìdì k'è Eghàlageèda

Dì nìhtl'è atl'è k'è Diavik edaàni ndè xè eghàlageèda t'à edexè sìgogèh²¹ eyits'q ayiì k'è eghàlageèda t'à ndè hoìdì wenìhtl'è ghàà sòmباك'è gomqò ndè xè edàgot'ì wek'èhodzo. Dzq nìhtl'è k'è, 2011 k'è Diavik ayiì edàtl'q k'è eghàlagiìda dek'èhtl'è.

Tìch'adì & It'q

Ndè Hoìdì gha Elexè Yatì Ts'eh²⁰ wetl'a, Diavik tìch'adì hoìdì k'è eghàlageèda, Wildlife Monitoring eyits'q Management Plan (WMMP) wetl'a wek'è eghàlageèda hqt'e. Sòmباك'è gomqò ndè k'è edàgoh't'e, chĩa eyits'q tìch'adì edàhot'ì eyiì at'ì wegodi nats'ìgeèle t'à eghàlageèda. T'asì hazq wehoìdì t'à wegodi nats'ìgeèle sì, Environmental Assessment dakwe ndè wegodi ìchì ìlè ghàà edàgode ha sònì gedì ìlè gha wehoìdì. Dzq wegodi wehda dek'èhtl'è, 2011 xo gha.

. 2011 xo welq, sòmباك'è gomqò ndè k'è t'asì edàtlq wedè hohle gha nìdè, 9.71 square kilometers (km²) haihdo xè haihkò sìwo. Dì dzeqè ndè edàhcho wedè adza gha nìdè, Environmental Assessment ndè wegodi ìchì ìlè ghàà nìdè, ndè necha tsììwo laànì le.

. Ndè edàhcho tsììwo xèt'e, ekwò gha ndè edàhcho tsììwo yazea idòò adza, 2011 xo k'è, haànikò sòmباك'è eghàlageèda t'à ekwò asadza le. Nàkè eht'à tìch'adì t'asì ełaiwho ìlè, sòmباك'è ts'q nìwhà le – nìhtl'èt'ak'è gàà eyits'q A154 èza gàà eyits'q A21 èza gàà.

. Nìhtl'èt'a t'à ekwò naita ìlè wedè agiìla 2011 k'è, nìhtl'èt'a t'à ekwò naita t'à ekwò gha nàgode, kòta dōne hagedì t'à wedè agiìla. Sòmباك'è gòzq t'à ndè edàhcho wexèidì ha sònì ts'edì ìlè, wezq gots'q necha wexèhdi. K'achì ndè xè ts'ìihdza k'è eghalats'eèda, 2012 k'è.

. Ekwò edàtl'ì k'èhoza gha ndè k'è ekwò hoìdì k'è eghàlagiìda 104 hàtlq eht'a, 2011 k'è, sòmباك'è gots'q 2 km echì wemqò gots'q eyits'q 30 km echì wemqò gots'q ndè k'è t'asì hazq wehoìdì hqt'e. Ekwò tsia dè k'èza sì edàgoh't'e ghàà eyits'q kw'ì ts'qò k'ègeza. Ewò tsia xè k'èza sì sòmباك'è ts'q nìwa sègeze eyits'q getè.

. Tìlì eyits'q kwèwà ełact'ò k'èè 59 hàtlq eht'à ekwò naita k'è eghàlats'ìda, Ekwò sòmباك'è gàà adza t'à nats'eèhza, tai eht'à, 2011 k'è. Ekwò 200 k'èza, sazi ts'qñè ndia k'è, Ehts'o K'è Yats'eh²¹ Zaà k'è 7 eyits'q 28 dzeqè gots'q, 2011 k'è.

. Ndè xèhdi t'à, sahcho ekò aget'ì laànì le adza, haànikò ndè edàhcho wexèidì ha sònì ts'edì ìlè wek'a²¹.

. Dì xo, sahcho ełaiwo le, t'asadza le eyits'q t'ası ıadı nets'eetsi. Sahcho ts'aı East Island ndia k'è 56 hătıq eht'a, 2011 k'è, sahcho ıle wezà tai wexè ats'q ekq aget'ı.

. DDMI eghàà ıchì t'à sahcho wehoidi k'è eghàlageèda ıle, 2011 k'è wedę agııla, ıadı eghàà gıhchì hageèta 2012 gha.

. Nòghà, East Island ndia k'è at'ı wègoòht'ı 2011 k'è, East Island ndia k'è 4 eht'a nòghà ts'aı. Sqmbak'è gòıq t'à nòghà ełaiwo le, 2011 k'è.

. Diavik, nòghà kèh nageèhta k'è eghàlagııda, kòta gots'q dı xè, 27 nòghà kèh geaı. Eyits'q Diavik, nòghà weghàà t'à wek'aeta t'à, GNWT eyits'q BHP-Billiton xè eghàıda. Diavik, 2011 k'è, 18 nòghà hătıq weghàà gııhchì. ıdàà 2014 k'è nıdè k'achı eghàà ıchì k'è eghàlageèda ade ha, GNWT edagııwq ghàà.

. Det'qcho haanı wet'oh while kwèkà nıı kwè kàgele k'èè, 2011 k'è. Sqmbak'è gòıq t'à det'qcho ełaiwo le, 2011 k'è.

. Wehoidi ghàà, sqmbak'è gòıq t'à t'ası ıadı gots'q agedza le, sqmbak'è gomòq ndè hoidi eyits'q sqmbak'è làà t'à nàgode kò det'qcho det'oh ehtı. Xo tà'te det'qcho det'oh gehtı, sqmbak'è nàgode kò. ıdàà, 2015 k'è nıdè, k'achı det'qcho nats'ııhta k'è eghàlats'eèda ha hqt'e.

. Tı whehtq k'è eghàlats'ııda le laanı, 2012 k'è, eyit'a tı edătıq wedę at'ı k'àı adza, eyits'q tabà tı edaanı ade ha gedı ıle xèht'e. Det'q eyits'q chıa ıqò k'àıa East Island ndia gàà tı whehtq ıadı agııla k'è aget'ı.

.T'asich'ı edaanı wek'èhodi ats'q dzeq tăt'e laanı wek'aeta adza, 2010 k'è. T'ası ts'èıa eyits'q wetq gııla 11% t'asich'ı k'èze t'à eyits'q 31% kwèwà ełatf'ò k'èè. Ndè xè eghàlaede dı, eghàlaede dı hoghàgeèhtq, edaanı t'à t'asich'ı hazq kàıa ehkw'ı wedę ageèhı wet'àıa hqt'e.

T'ası hoidi k'è eghàlageèda xè, Diavik eyits'q hazq diamond gha sqmbak'è gòla, tıch'adı hoidi k'è eghàlageèda t'à, ıdàà nàkè xo gots'q ełexè edaanı t'ası k'è eghàlageèda ghq gogııde. 2011 xo ghàà wek'è eghàlagııda eyits'q kòta dıne xè ełegeadı, diamond gha sqmbak'è tai ts'q dı ıle ıchì (Diavik, EK'ATI, eyits'q Snap Lake), Ndè Hoidi Nıhtf'èkò (EMAB, IEMA eyits'q SLEMA), Edzanę gha Ndets'q K'aowoh (GNWT), Department of Environment eyits'q Natural Resources (ENR), Environment Canada, Wek'eezhıı Renewable Resources Board (WRRB) eyits'q kòta xè ełegeadı. T'ası hazq wehoidi ghq ełegeèhdı tăt'e wenıhtf'è hohıe eyits'q wexè t'ası k'è edaanı eghàlageèda ha gııwq hagedı t'à, t'ası k'è ıadı eghàlageèda hqt'e.

Nıhts'ı Edaanı (Ehtf'è eyits'q Łozhà)

Ndè xè eghàlaede dı, ehtf'è hoidi k'è eghàlagııda, 2011 k'è, ıdìı xo laanı. Edàk'q tăt'e zah k'aeta. Zah ıchì sıı nayıı ageèhı t'à wetı tah ayıı edànaetso gha wek'aeta eyits'q

wetah ehtl'è edàtlq gòh gha wek'aeta. Ehtl'è ichi wek'aeta eyits'q ehtl'è edaani, edàtlq eyits'q edii gots'q gha wek'aeta, asl sqmbak'è gots'q at'ì gha wek'aeta.

Haani ha sqni ts'iiwo ile, wexèht'e, sqmbak'è gàà dèzq ehtl'è gòh eyits'q sqmbak'è gots'q niwa k'àzi ehtl'è gòh. Ndè k'è edàgot'ì ghàà ehtl'è edàtlq gòh wek'èhodzq eyits'q edii nawhets'ì ghàà ehtl'è edaani k'èhts'ì wek'èhodzq.

Hazq t'à ehtl'è edàtlq naift'ì ts'iidza 2001 k'è gots'q (2011 k'è wexè) wehoidi t'à Environmental Effects Report (1998) k'è edàtlq ha sqni gedi ile, wetè gots'q adza. Ehtl'è k'èhts'ì hqt'e, haanikò sqmbak'è hohle t'à dèzq eghàlageèda adza, 2005 k'è eyits'q 2006 gots'q 2008 gots'q, dèzq ehtl'è lqò giihdza. Ehtl'è k'àzi naift'ì 2011 k'è, sqmbak'è gots'q niwa ehtl'è k'àzi gòh.

Zah ichi sii nayii t'à weti tah naedi edanaetso gha wek'aeta t'à wek'èhodzq hqt'e, ti t'à eghàlageèda t'à ti tah t'asi edanaetso ha ile ghàà eghàlageèda t'à Water License Ti T'à Eghàlats'eèda Nihlt'è gitq hqt'e, 2011 k'è, ti tah naedi edanaetso ha ile wek'àzi.

Diavik tili k'è ti ageèhzi, sqmbak'è gomqò imbè k'è k'àzi ehtl'è daedi gha. 2009 k'è Diavik kwè naede satsq wegòò, ehtl'è ichi wek'è whezq t'à, kwè naede dè k'àzi ehtl'è nat'ì.

2008 k'è, Diavik nihts'ì xè eghàlaede dq xè sqmbak'è gomqò edaani nihts'ì wehoidi gha wek'è eghàlageèda xèhoiwo. Mqht'a edagqht'e ghàà, ehtl'è edàtlq k'èhts'ì ghàà, sqmbak'è tleh edatq k'èk'q ghàà eyits'q satsq behchi edàhot'ì t'à eghàlageèda wegodi ghàà mqht'a nihts'ì xè edagqht'e wek'èhodzq. Diavik, Environmental Assessment gha nihlt'è edexè sigiila kò, nihts'ì edaani wehoidi gha nihlt'è sigiila ile, sqmbak'è wets'qdahatq kwe. Diavik yek'èzq, t'asi wehda ladì adza, Environmental Assessment gha nihlt'è edegha sits'iila gots'q (dèzq whàà sqmbak'è hohle k'è eghàlagiida) eyit'à edaani nihts'ì hoidi naàwo wegòò t'à eghàlats'eèda xèhoiwo, 2011 k'è. Environmental Air Quality Monitoring Program, edaani nihts'ì k'è eghàlats'iida wenihlt'è GNWT-ENR, Environment Canada eyits'q EMAB ts'q ats'ele ha, 2012 k'è gonihlt'è ghàgeèda ha nide.

Xo tàt'e, Diavik tleh k'èhk'q t'à lòzà edàtlq ehtsì sii giihdza t'à dek'èhtl'è agehzi, eyii nihlt'è naàwò ghàà eghàlaede dq ts'q agèhzi; 2011 k'è, lòzà 2010 xèht'e, hazq t'à nide, 199,000 tonnes haiha CO2e lòzà hòli. Lòzà lqò kàzà hohle sii hazq yat'a gots'q at'ì hqt'e. Diavik, tleh (satsq bèhchi gha, satsq etlè gha eyits'q kò goyii gòkò gha) zq t'à eghàlageèda t'à lòzà lqò hohle sii yat'a ts'q at'ì hqt'e.

Tè T'asi Wehoidi (Ti eyits'q Lìwè)

Diavik iàà Aquatic Effects Monitoring Program (AEMP) tè t'asi hazq nàdè wexèidi gha wehoidi t'à wegodi ichi, 2011 k'è. 2011 k'è, silai xo AEMP xè t'asi ladì agiila, tai eht'à ti k'aeta agiila (July, August eyits'q September) eyits'q xo k'è tqq k'aeta April eyits'q May k'è. Tai xo gots'q t'asi k'è eghàlats'iida wek'aetq 2011 k'è eyits'q

Traditional Ecological Knowledge whàhdq naàwo t'à ìwè eyits'q tì xè eghàlats'eèda, 2011 k'è wexèhoìwo eyits'q 2012 ìlàà wek'è eghàlats'eèda ha hq't'e.

AEMP wet'a t'asì hazq wehòidì sù wegòdì nats'ìgeèla ghàà, Lac de Gras sqmbak'è gòzq t'è t'asì wehda ìadì adza sù, wek'èhodzq. Tì tah naedì edanaehtso yazea ìadì adza, eht'è tì ìadì adza, tehtsàkw'qa eht'è tah nàdè sù ìadì adza, hazq ts'ìhdza. Sqmbak'è gòzq ts'q nìwà le, t'è tì tah t'asì ìadì adza wegòdht'ì (nìwà le tì k'aeta k'èè) eyits'q sqmbak'è gòzq ts'q nìwà, tì ìadì laànì le (nìwà tì k'aeta k'èè). Diavik ìwèzq k'ageèhtq, Lac de Gras eyits'q Lac du Sauvage k'e ìwè k'aetq sù yazea mercury satsq ìwèkwq tah ìdòò adza. 2011 k'è t'asì hòidì wegòdì ghàà, mercury satsq yazea ìdòò adza 1996 wehòidì gots'q. Lac de Gras eyits'q Lac du Sauvage (sqmbak'è ts'q ìdàà nìlì), eyit'à sqmbak'è t'à le laànì.

Diavik Wet'a Nìht'è At'è

2011 k'è eyits'q 2012 xèhoìwo kò, Diavik nìht'è ìq whetsì eyits'q edaànì t'asì hazq et'è gha nìht'è whetsì, naàwò ghàà eghàlaede dq ts'q agìlì, Wek'èezhì Ndè eyits'q Tì gha Board k'è dehk'w'e dq, Department of Fisheries eyits'q Oceans, Aboriginal Affairs eyits'q Northern Development Canada eyits'q Environment eyits'q Natural Resources. Dì nìht'è k'è edaànì t'asì k'è eghàlats'eèda gha edexè sìgots'eèhì wegòdì yazea dek'èht'è.

Sqmbak'è Et'è

2011 k'è, Diavik 6.7 million diamond kwè hagiìlì, ìnèq 2010 k'è 5.6 million ìle, eyits'q 2009 k'è 5.6 million ìle (sqmbak'è whàà le gots'q wets'qdaetq ìle 2009 k'è). Diavik ìdàà nàkè gots'q k'àzì eghàlageèda ade ha.

2011 k'è, satsq wet'àza, wet'à eghàlats'eèda gha t'asì eyits'q t'eh, xo tìlì t'à t'asì haànì sqmbak'è ts'q k'èzè hq't'e, dì xo tìlì ts'qdahtq January 28 gots'q April 1 gots'q.

Ndè got'a ts'q gòza hohìe, eghàlaede dq ndè got'a kìmberlìte kwè A154 eyitsq A418 k'è eghàlageèda gha hohìe, eyits'q A154 eyits'q A418 k'è eghàlats'eèda haànìkò, kìmberlìte kwe tai A21 k'è eghàlageèda le.

Kqta Ayì ghq Nànìgeèwo

Environmental Monitoring Advisory Board, Diavik ts'q gogìlìde, dì xo k'è, Diavik ts'q edàgedì wegòdì, dì nìht'è k'è dek'èht'è hq't'e.

Kqta gots'q dqne edatìq eht'à sqmbak'è nàgedè Section 6.2 k'è dek'èht'è. Kqta dqne xè èlets'eèhdì, Tìchq Government, Kìtikmeot Inuit Association (KIA), Yellowknives Dene First Nation(YKFN), eyits'q Lutsel K'e First Nation (LKFN), eyits'q North Slave Metis Alliance (NSMA), dqne haànì xe èlets'eadi. Kqta gots'q dqne ndè ghq gots'q gogìlìde le, 2011 k'è

Naàwò Kàza

2011 k'è, Diavik ats'q naàwò wegòò t'à sɔmbak'è eghàlageèda gha t'asì ɫadì hageèta hɔt'e. ɪdàà nɪdè nɪhts'ih t'à satsq etlè t'à eghàlats'eèda ha dɪ le ade ha, Diavik sɔmbak'è nɪhts'ih t'à satsq etlè dɪ hohle ha, 2012 k'è. Kòta gots'q dɔ gots'adì xè, edɪ whaehdɔ kòk'è gòla gha ndè wek'aetq, September 2010 k'è, eyit'à edɪ nɪhts'ih gha satsq naɪza agele ha wek'ègeèzq adza. Nɪhts'ih t'à satsq etlè ghɔ, naàwò ghàà eghàlaede dɔ eyits'q kòta dɔne xè gots'ɪdɔ ɪle, 2011 k'è. Edzanɛ gha t'asì ɫadì wets'eèhdza, t'asì ɪqò wehodì le haànikò wets'eèhdza ha hɔt'e. Sɔmbak'è naàwò wegòò t'à edegeèhdza, ɪlè dzeɛ edzanɛ k'è kòta sɪ wet'à aget'ɪ t'à tleh ts'eèhk'q k'àzɪ ade ha tahko.

Diavik, satsq wet'à t'asich'ì k'ehk'q wegòò negɪzɔ, 20011 k'è. Satsq hòlɪ, edɪ whezɔ gha sɪdla, wegħa kò hòlɪ eyits'q satsq efek'ègɪwa. ɪlaa wek'è eghàlats'eèda, 2012 k'è satsq wet'à t'asich'ì k'ehk'q etlè ade ha.

Diavik, ɪlaa edaàni A21 kimberlite kwè Lac de Gras wetl'a nɪza hagele ha hageɫa.

Ndè Hoìdì Ghàà ɪdàà Edàgode Ha Wek'èhodzɔ

Dɪ nɪhtl'è atl'è welqɔ Appendix B, Rolling Effects Summary, godɪ hayeh dek'èhtl'è. Edaàni ndè hoìdì t'à ɪdàà edàgɔht'e ha wek'èhodzɔ, tìch'adì xè, ɪt'q xè, mɔht'à yat'a xè, ɪlwè eyits'q tɪ xè, wehoìdì ghàà wek'èhodzɔ. 2011 wegodì eyits'q ɪnɛɛ xo wegodì xè weghàgeèda ghàà ɪdàà edàgɔht'e ha wek'èhodzɔ hɔt'e.

Ndè hoìdì wegodì ghàà, Diavik sɔmbak'è gòzɔ t'à edaàni ndè xèidì ha sɔnɪ gedì ɪle, wek'àzɪ, haànikò dezɔ ehtl'è gòɪ eyits'q ekwò sɔmbak'è gots'q at'ɪ wehoìdì.

Naàwò Ghàà Eghàlats'eèda

2011 k'è, Diavik ndè nɪhtl'è eyits'q tɪ nɪhtl'è ghàà eghàlageèda. Dɪ eht'à whàà lea gots'q kò ts'q tɪ det'e. ɪlè, nàkè eht'à tɪ wetah naedì ammonia, zinc, nickel eyts'q pH ɪdòò adza (1645-24, tagonɪwà le), eyits'q ɪlè (2008-SEEP-01 tagonɪwà le) t'à zinc satsq ɪdòò adza, dɪ (2011-SEEP-01, tia) zinc satsq eyits'q nitrites ɪdòò adza. Tɪ tɪ Lac de Gras ts'q adza, whàlea gots'q.

Indian and Northern Affairs Canada (INAC) Ndèts'q K'aowoh-dè gha sɔmbak'è k'aehta dɔ, ek'ètaì eht'à Diavik nàhtl'a, 2011 k'è. Wegodì, Summary of Compliance, wetl'a dek'èhtl'è hɔt'e.

Ndè Hoìdì Làà

Table A1, Appendix A, dɪ nɪhtl'è welqɔ Diavik 2011 k'è t'asì hazɔ kàza wehoìdì k'è eghàlagɪda wegodì dek'èhtl'è, eyits'q ayì k'è eghàlagɪda eyits'q edaàni wek'è eghàlagɪda wegodì sɪ dek'èhtl'è.

- . Ehtl'è eyits'q Mqht'a Yata hoìdì;
- . Tì edàtlq eyits'q tì edaàni hoìdì;
- . Tè t'asì nàdè wexèidì gha wehoìdì;
- . Tìch'adì eyits'q tìch'adì edì at'ì wehoìdì;
- . Lìwè;
- . Nìhtl'èkq-dè xè t'asì hageèta k'è eghàlageèda

Yatı dek'èhtl'è weyatı (nıhtl'è k'è dek'èhtl'è)

AEMP	Tè T'ası Hazq Hoìdì
ARD	Kwètì
ALDP	Dqne Sqh K'àdè Naàwo Hoghàgeètq
CCME	Canada k'èzì K'àdè Ndè gha Dehkw'e
DIAND	Dqne Sqh eyits'q Edzanè Wenıhtl'èkq
DDMI	Diavik Diamond gha Sqmbak'è
EA	Ndè Hoìdì gha Ełexè Yatı Ts'èhɔq haàní le dè Ndè K'aeta
EAAR	Xo tàt'è Ndè Hoìdì Wegodì hohłe
EMAB	Ndè Hoìdì Dq Dehkw'e
EMS	Ndè xè Eghàlats'eèda
ENR	Ndè eyits'q Ndè k'è T'ası
GNWT	Edzanè gha Ndèts'q K'aowoh
GPR	Ground Penetrating Radar
HU	Habitat Unit
INAC	Dqne Sqh eyits'q Edzanè xè Eghàlageèda Wenıhtl'èkq
ISO	Hazq Nèk'è Naàwo łhè Gıtq t'à Eghàlageèda
ICRP	Enètłkwe T'ası Sınaɔı
MVLWB	Mackenzie Valley k'è Ndè eyits'q Tı Gha Dehkw'e Dq
NIWTP	Chłk'èdà Tı Sıɔı Kq
NTU	Nephelometric Turbidity Units (measurement of water turbidity)
OLDSSF	On-Land Dredge Sediment Storage Facility
OPCP	Operational Phase Contingency Plan
PK	Kimberlite kwè Sıɔı
PKC	Kimberlite kwè Sıɔı k'èè
PVP	Ndè k'è Ats'q łtq Dehshe
QA/QC	Quality Assurance/Quality Control
SNP	Surveillance Network Program
SOP	Edaàní T'ası Weghàlats'eèda
TSS	Tè T'ası Edàtlq Daele
USEPA	Bèhchonè k'è Ndè Hoìdì Wenıhtl'èkq
WHMIS	Làà k'è T'ası Wets'àhòdzı t'à Eghàlats'eèda Wegodı
WMMP	Tìch'adì Hoìdì eyits'q Wexè Eghàlageèda
WTA	T'asıch'ı K'eze k'èè
ZOI	Eyì Edàgot'ı ghàà Wexèidì

Weyatì

Abundance – t’asì ɣè kàza eɣexè naita

Adaptive Management – t’asì hoìdì t’à hoghàdets’eètq t’à eghàlats’eèda

Benthic Vertebrates – gòò nechalea wenɣkw’ò while, tè eyits’q deh eht’è tah nàdè

Deposition Rate – t’asì nàt’ì edaɣwhà nɣdè ɣzhì nìt’ì

Distribution – t’asì hazq wexèidì ats’èhɣì

Effluent – tɣh’ì sìnazɣì tè gots’q anats’eèhɣì

Enrichment – t’asì t’à deɣq nezɣì ats’èhɣì

Environmental Assessment – làà hohɣe kwe ndè k’aeta, làà t’à ndè xèidì ch’à

Eutrophication – tè ɣt’ò haàni ɣòò kàza dehshe

Habitat Compensation – sqmbak’è hohɣe t’à ndè xèihdì sìnageèhɣì; ndè xèhdì sìnazɣì

High-Level Effects – ɣwhaq t’asì nechalea t’à ɣadɣ adza wek’èhodzq

Mitigation Measures – t’asì xè t’asagowode ch’à, dɣ haàni t’asì hoìdì hq’t’e

Moderate Effect – t’asì ɣadɣ t’à yazea ɣdòò adza

Monitoring – t’asì wehoìdì ghàà wek’èhodzq, ɣadɣ at’ɣ gha wehoìdì

Parameters – wenaedɣ eyits’q edàt’ɣ ghàà, tɣ eyits’ò eht’è edaàni wek’èhodzq

Plum – nɣhts’ɣ, tɣ eyits’q ndè t’asì t’à wexèidì

Prediction – t’asì ghàà ɣdàà edàgode ha wek’èhodzq; naàwo ghàà haàni le dè làà ghàà

Progressive Reclamation – sqmbak’è eghàlageèda xè edek’è ndè sìnageèhɣì

Research – ndè ghq t’asì dats’eèhk’e t’à hats’eèta; edaàni ghq t’asì ɣadɣ at’ɣ hats’eèta

Risk Assessment – t’asì t’à t’asagowode sqq gha wek’aeta; eyit’akq edaàni weghàlageèda ha wek’èhodzq ha

Sediment Chemistry – tè eht’è tah naedɣ edànaetso

Seepage – tɣ haàni le dè t’asì haewɣ

Trophic Status – tè t’así edàtlq dehshe ghàà tè ayì nàdè wek’èhodzq

Water Quality – Tí, satsq eyits’q naedi wets’q elí, edàzeèhk’o eyits’q ayì tè dehshe wek’aeta ghàà, tì xè edàgqht’e wek’èhodzq

Zone of Influence (ZOI) – ekwq t’así ghq sqmbak’è gòzq ts’q aget’í

Naittuq Titirauhia

Diavik-kut haffuminnga unipkaaliuqpaktut ukiuq tamaat nalliraangat tuhaqtittivakhutik nunallaanut ukununngalu Ilagiiktuni haffumani Avatilirinirmut Angirutaani (una Angirut). Nakataani 12 Angirutimi uqaqhimaniqaqtuq unipkaaliuqpaktukhat, uvvalu titiraqhimaniqaqtuq kitulli titiraqhimanikhaat. Atuni ukiuni Diavik-kut katimaqatigaqpaktut inungnit nunallaani uyarakhiurviit qanigiainni, hamna unipkaa qautigivakhutigik uvvalu qanurli uqauhiqarnianik. Atulihaaqtillugu 2012, Diavik-kut katimaqatigihimayait nunallaat uqautigiyumablugit avatilirinirmut pitquhiannik, tuhaqtittidjutiqaqhutik 2011-mi Avatilirinirmut Angirutaani Ukiuqhiutit Unipkaanginnik.

Diavik-kut ukuallu Avatilirinirmut Takuurinnik Uqaudjiyit Katimayiat (EMAB)

Una Avatilirinirmut Angirut titirauyuq titiraqhimabluni atiliuqhimablunilu March 8th, 2000-mi. Qaffiuyunik ilaqaqhuni, uqauhiqaqtuq kamagivagainik Diavik-kut, Nunaqaqqaqhimayuni timiuyut, ukuallu kavamatuqatkut ukuallu aviktuqhimayuni kavamait. Una ihumagiyaulluqaqtuq, hamna angirutauyuq tamainnut kitunullikiaq ihumagiblugu Diavik-kut qanuriliurniarnikhaanik uyarakhiuqtillugit ilaa avativut hapummiyauttiarniarumi. Uqauhiqaqturlu uqaudjiyikhani katimayiqaktukhat – ilaa hamna EMAB-kut makipkaqtauhimayut uvvalu ahianiittut Diavik-kunnit uvvaluunniit ahiit katimayut atiliuqhimataaqtut haffuminnga Angirutimik.

EMAB-kut, Katimayiublutik, katimayiqaktut kivgaqtiannik ukunanngat atuni katimayinit ilauqatauhimayut haffumani Angirunmi. Ihumaaluutivaluillu tikitpaktut kigliqarninit (ukunatat imaringniq anngutikhatigullu) uvvalu Avatilirinirmut Angirutaani haffuminnga ilitariyaqaramik, ukuat Kavamatkut Nunavunmi kivgaqtiqaramik ilauqatauvaktut uvani EMAB-kunni. Hapkuat ilauqatauhimayut haffumani Angirunmi hamma uvaniittut Titirarningani 1.

Titirarninga 1: Katimayut Avatilirinirmi Angirutaani

Tlicho Kavamatkut (ukuanguhimayugaluit Dogrib Yellowknives Dene First Nation Treaty 11)

Kavamatkuat Kanatami	Kitikmeot Inuit Katudjiqatigiit
North Slave Metis Alliance	Lutsel K'e Dene First Nation
Kavamatkut Nunattiarmi	Diavik Diamond Mines Uyarakhiurvia

EMAB-kut qaffiuyunik havaaqaqtut – ilangit qimilruuqhivaktut Diavik-kut avatilirinirmut parnaiyautainnik, unipkaanginnik piliriaqtakhainiglu uvvalu pitquihimaniqaqtut amigaittunik aallatqiiktunik avatilirinirmut mikhaanut, Nunaqaqqaqhimayuni Ilagiiktut ukuallu nunallaani ilauqatauvaktut, Ilitquhirinirmut Qauyimayatuqangit (TK), ahiillu uqautauyumayut. Ukuat Katimayitkut havaqatigivaktait Nunaqaqqaqhimayuni Ilagiiktut ukuallu nunallaat ilaa tunihyungnarmata Diavik-kunnut uqautiqarlutik avatilirinirmut takuurinik piliriarutainiglu.

Una unipkaa naittumik titirarniaqtut avatilirinirmut unipkaanginnik ukuat Diavik-kut parnaiyaqpagaik takuurinirmut piliriarutainnik. Hulilukaarutigivaktainiglu Diavik-kut ilaqarmiyuqtauq, inuit ihumaaluutainik, aadjikkuhiurutainiglu avatilirinirmut aktuumanianik itqurniaqhimayaraluanginnik, nutaanik qanuriliurutikhait ukuat Diavik-kut takuurihimayait, uvvalu naittumik titirauhia ihivriuqtauvangniat Diavik-kunni ukunatigut INAC-kunni Ihivriuqhiyanit.

Ukuat Diavik Diamond Uyarakhiurvia ukuallu Avatiliriniq

Diavik Diamond Mine Uyarakhiurvia hanayauhimayuq uvani East Island-mi, mikiyuq qikiqtaq qanigiyaani kivataani Lac de Gras. Hapkuat uyaqqat hitiyut Diavik-kunni nalvaqtauhimayut qirnariktuni uyaqqani (qirniqtut uyaqqat) ikuutaqtauhimayuni, hinaani East Island-kut Lac de Gras-kunni. Lac de Gras immaqaak 60 kilometer-nik takiniqatquq uvvalu ahu 300 kilometers-nik ungahingniqatquq kanangnangani-kivataanu Yellowknife. Una tahi q hikuvaktuq October-mi, immaktiliqpakhuni July-mi. Imaiyaqpaktuq Kugluktumut.

Hanigiyaani Diavik-kut akhaqaqtut, amaqqullu, qalviillu, tiriganniallu, ukaliillu, hikhiillu, avin'ngaillu, ulimakkaillu, aqilgiillu tingmidjavallu. Qingaunmi tuktut ingilravigivagait upin'ngakhami ukiakhamilu, amigaittut tuktut East Island-munngayuittut.

Angiyut avatait hanayauvaktut tahirmi, uvvalu imaq iluaniittut kuviyauvaktuq hapkuat uyaqqat hitiyut ataaniittuni uyarakhiurviuvaktuq. Una hivulliq avataq (A154) iniqtiqtauhimayuq 2002-mi uyarakhiurviuliqhuni 2003-mi. Hanania aippaata avataup (A418) hanayauhimaliqtuq auyami 2005-mi, iniqtiqtaublunilu 2006-mi uvvalu uyarakhiurviuliqhuni 2007-mi. Ukuat avatait naahautiqatut naunaipkutaublutik atiit uyarakhiuqtauvaktut uyaqqat. Una pingahuat uyarak ikuutaqtauhimayuq taiyauvaktut A21 uvaniittuqtauq Lac de Gras-mi haniani East Island. Diavik-kut hanahimayut nunaup iluani hitimik uvunngaayumut A21 uyaqqanut 2006-mi, talva kihimi uyarakhiurviunngittuq. Uvani 2008-mi Diavik-kut nutqaqtillaktaat A21 havauhia.

Ukiungani 2011-mi nainguyunik (9) ukiuqaliqtuq Diavik-kut havauhiatigut. Tadj, Diavik-kut uyarakhiurviqatut angmaumayumi uvvalu nunap iluani uyarakhiuqhutik hitiyunik. Hamna uyaqqat qirnariktullu uyaqqat hanivaqtauvaktut qaanganit angmaumayut uyarakhiurvingnit uvvalu kihingquqhimayut uyarakhiurniit nunap iluanit. Uvani 2012-mi, Diavik-kut iniqtirniaqtaat angmaumayuq uyarakhiurvik uvvalu uyarakhiurviginiaqtaat qirnariktut uyaqqat nunap iluanit. Uyaqqat qirnariktut ungavaqtauvaktut uyarakhiurvingnit nunap iluanillu, agyaqtauvaktut uyarakhiurviup hannaviannut angiyukkut akhaluutikkuuqtut, talvani hiqubluqtauvaktut ukuallu uyaqqat hitiyut ungavaqtauvakhutik iksuliiqtaublutik.

Diavik-kut mikiyutigut nunallaani ittuq – Nayurviqaghuni hinigviqatsumik, nirriviqaqsumik, havagviillu, imaqaqniqaghuni anaqtaulviqaghunilu, halumailrunik iqqakuurviqaghuni, hannaviqaghuni, qullinik huanngakhaiviqatquq uvvalu mittarviqaghuni. Una 350 kilometer-nik hikukkuurnirmut apqutiqaquni ukiuq tamaat ilaa ihuaqutikhavaluit agyaqtauvakhutik Diavik-kunnut uvungalu ahiit uyarakhiurvingnut initurligiyaavaktunullu. Uqhuryuat, uyaqqat naptunnguqhimayut, hanayauyukhat ihuaqutikhat, akhaluutit, ingilrutit, initurlini tamayakhait, ahiillu uhiyaublutik agyaqtauvaktut ukiumi apqutikkut. Ukiungani talvani, tamayavaluit Diavik-kunngaudjauvaktut tingmiakkut.

Avatilirinirmut Aulaningat

Diavik-kut Avatilirinirmut Aulaniqaqtut, taiyauvaktut EMS-kunni, takuurinirmut ikayuutauvaktut ihuaqhivaallirutauvaktut avatilirinirmut havauhiannik. Ukuat EMS-kut ihuaqutaat Diavik-kunni naunaipkutiqatut atuqtauvaktut taiyauvaktut ISO 14001, nunaryuani tamainni ilitariyauhimamaniqaqtumi. Hulilukaarningat uyarakhiurvingmi (avatanik hananiq, agyaqtarniq uyaqqanik, qullit huanngakhaivianik, tingmiqattarnirlu uyarakhiurvingnut uyarakhiurvingnit) avatanut ayuqhautiqapaktut, ukuat EMS-kuuqapaktut ikayuutauvaktut hapkuninnga.

Ukuat EMS-kut ihuaqutaat ilaqaqtut havauhikhatigut pitquhiinik, avatilirinirmut parnaiyautainnik piliriarutailu hapkuatut titiraqhimaniqaqtut uvani unipkaami, uvvalu ihuaqutikhat tuhaqtittinikkut parnaiyautainnik uvvalu avatilirinirmut titiraqhimaniit pihimayauvaktukhat. Hamna tutqiktumik pivikhaqaqtut haffuminnga 'nutqaqhimaittumik ihuaqhivaallinirmik' – hamna EMS-kut ilaa haffuminnga havauhiqaqtut. Qanurinningat takuurinikkut, havaakhat qauyihainirlu qimilruuqtauvaktut Diavik-kunni havaktiinit, nunallaani uvvalu atuagaliqiyuni, naunaiyavakhutik hapkuninnga piliriarutinik havauhiqarniannik. Hapkuat qanurinningat atuqtauvaktut qanurli ihuaqhivaallirutikhanik hivuani havauhikhatigut. Titiraniqaqtut kinguani haffumap unipkaap (Titirarninga A2, Uiguani A) takukhauniqaqtut amigaittut ilaqarniat haffumap avatilirinirmut ukuat Diavik-kut aulanigivagainnik. Hapkuat ilagiyait iqqakuurniq, imaqarniq, hivuuranaqtuqarniq, anngutikhat, piluit puyuut, uvvalu kaasiliit puyurningat.

Naunaipkutiqarnia pihimayauniarumi ISO 14001 aturningannik, Diavik-kunni EMS-kut takuuriyauqattaqpaktkhaq uvvalu takuuriyauhimavuq 2011-mi. Qimilruuqhiyauvaktut ukuninnga iluanit hilataanillu qimilruuqhiyinit, qanurittuukpat kihiani malikhugu, uvvalu takuuriyauuningat naunaighidjutailu ukuat Diavik-kut maliruaqhugu ISO 14001 atuqpagaikkut. Hilataanit qimilruuqhiniat ahiniittunit ayuittuuyunik qimilruuqtauvaktut (inuit havaaqanngittut Diavik-kunni) takuurivagait EMS-kut ihuaqutigiyainni. Una 2011-mi qimilruuqhiniat nalvaaqhiyut Diavik-kunni EMS-kut atuttiaqtaat ISO 14001 atuqtauvaktukhatigut pipkaiviqahutigli Diavik-kut pihimalirlugit naunaipkutigiainnik.

Hungiutinikkut Aulaningat

Uvani Angirunmi uqarniqaqtut Diavik-kut avatilirinirmut aulaningat parnaiyautaanni piliriarutaannilu ilagiyauniaqtut hungiutinikkut avatilirinirmut aulaninganik piyumaqqat hapkuat ilagilugit hungiutinikkut avatilirinirmut ihuaqhivaallirutikkut uuktuutigiyainnik.

Tadja maliktauyukhanik piqanngittut ukunatigut hungiutinikhakkut aulanikhaanik uyarakhiututni havagvianni ukiuqatqumi, qanurlikiaq, Diavik-kut aulaningat parnaiyautaanni piliriarutaannilu malikpagait nutqaqhimaittumik ihuaqhivaallirutainnik ukunatigut parnaiyarniq-pivikhaniq-takuuriniq-hananiq, naniliqaak aallanguqpaallirungnaqtut qanurinningat tuniyauvaktut inmingnut; hamna tamainnut hungiutinikkut aulaniqaqtut. Ilangit uuktuutit hungiutinikkut aulaningannik uvani Diavik-kunni hapkuninnga ilaqaqtut:

- Qaffiuyulli aallangurutigiyaat piluit puyungannik uvvalu aniqhaaktauvaktunik qimilruuqhiniqaqtut qanurinningannik pivaktut uukturnirmut;

- Aktuumaniqarnirmut Qimilruurutit atuqtauvaktut aktuamaniit uuktuqtauliraangata haffumani Imarmiuttat Aktuamanianni Takuuriniq havauhianni (uqautauniaqtuq kinguani haffumap unipkaap); uvvalu,
- Aallanguqpaallirnikhaatigut qanurli niryutikhat takuuriniannik piliriarutait iniqtiqtauvaktut haffumani ukiuni kingullirni takuurinikkut qanurinninganni.

Takuurinikkut Piliriarutit

Ilanganiittuq haffumap unipkaami titirauhiqaqtuq Diavik-kut parnaiyautait piliriarutailu atuqtauvaktut qanurittaakhaa avatiliriniq haffumaniittuq uyarakhiurvingni. Uvva ataaniittuq naittumik titirauhia qanurinninga uvanngat 2011-mi takuuriniat Diavik-kut tahamani atuni nayugauyuni.

Anngutikhallu Nauttiallu

Haffumani Avatilirinirmut Angirutaani, Diavik-kut takuurivaktut anngutikhat qanurittaakhaita, uvani titirahimayumi Anngutikhat Takuuriyauningat Aulaninganiglu Parnaiyautaanni (WMMP). Hamna piliriarut makipkaqtauhimayut katitiriyukhat tuhaqtauyukhanik anngutikhat nayuqpagangit, tingmidjat niryutikhallu tahamani naunairahuarlugu aktuumaniaqqata uyarakhiurvingnit. Qanurinningat aadjikkuhiurutauvaktut ukununga Avatilirinirmut Qimilruuqhijutainik. Hammauyut ilangit titirahimaniit uvani 2011-mi.

- Kinguani 2011, tamaat anngutikhat nayuqpagait tumarluiyaqtauhimavaktut uyarakhiurnirmut unauyuq 9.71 square kilometers (km²). Tamaat anngutikhat nayuqpagait tumarluiyaqtauhimavaktut ublumimut attingniittuq itqurniaqtauhimayumik ukunangat Avatilirinirmut Qimilruuqhijutainit.
- Talvaluttauq aadjikkutaanik tamaat anngutikhat nayuqpagait tumarluiyaqtauhimania, mikiyumik tumarluiyarniaqtuq nayuqtauvangningannik tuktuut 2011-mi, talva kihimi tuktuut tuqungayuqanngittuq aanniqhimayuanngitturlu uyarakhiurnirmut. Qaffiuyuniglikiaq anngutikhat tuqtauhimayut nalvaqtauhimayut uyarakhiurviup ungahikpallaannginniani – atauhiq mittarviup hanianiittuq, atauhiq qanilruani A154 avataliup uvvalu atauhiq haniani A21 nayugaanni.
- Tingmiakkuqhutik qimilruuqtauningat tuktuut nutqaqtitauhimayut 2011-mi ilaa Diavik-kut qimilruuqhiniit tingmiblutik uvvalu ihumaaluutigivagait nunallaani inuit nipiqquqtuvallaarningat ihumaalutigiblugu halikaptakkuqhutik. Kingulliit naahautait naunaipkutaayut akturningannik (anngutikhat nayuqpagait aktuumaniaqpaktut uyarakhiurnirmut) uyarakhiurviit inigiyainni angitqiyayut itqurniaqhimayamingnit. Qimilruuqhiniarmiyut immaqaaq 2012-mi.
- Tuktut ilitquhiita qauyihaiyut/ihivriuhimayangillu (nunamiittuni) amiriyauhimayut tamatkighugit 104 nit 2011 mi, tamatkighugit ungahingninga qanittumi 2 km angitqiyaanit 30 km uyarakhiurvingmit. Naunaitkuta takunnaqhuni tuktuut ilitquhiita nurraitumik takunnaqhuni katilviuvallaaghunilu hilaum kumaum hulivakhutiklu. Tuktut katimayut nurralgit hulivallaaghutik niqhiuqhutik/unaguiqhiqhutik ingilraliraangat ungahikutumut uyarakhiurvingmit.
- Apqutit uyaralingnit qauyihahimayayut amiriyauhimayut 59 nit qauyihagtaublutik. Tuktut kamagiyauvakhutik ingilrayaablutik uyarakhiurvingmit pingahuaqtaqhutik uvani 2001 mi. Tuktuulingnit 200 nit tuktuut uvani hivuraa uataanit hanianit qikiqtarmut 7 nit 27 nut Aktuupa 2011 mi.
- Adjigiiktamingnit tamainnut nayugaanit hiqumittut, angiglivyakhimayunit nayugaanit hiqumittut akhainit kihimi tamainnut hiqumittut huli aulayuittuni kangiqhihimayaablutik.
- Akhait tuqutaunnittut, aanniqtaungittullu, nuupkaktaungittutiglu ukiumi. Akhait naunaiyaablutik uvani Kivataani Qikiqtami 56 nit nalunaiqtaublutik 2011 mi, ilagiiqarniqhutik 3 akhait nayuqpagait uvani nunami.

- DDMI nutqaqtitauphimayut mitqunanit ahivaiyaiyut amiqhaiyut akhanut takunnaqtut iluani Diavik uumayulirinium qauyihagtut inianit haffuminngat 2011 mi amiqhainahuaqhugit ukuninngat nutaamik uuktuqtangit mitqurnit kititighutik uvani 2012 mi.
- Qalviit takukhauvakhutik Kivataani Qikiqtarmi uvani 2011 mi takukhauvakhutik Kivataani Qikiqtami hitamaighutik. Tuqutaungittut uyaraqhiurnikkut mikhaagut 2011 mi.
- Diavik-kut kamagivaktangit qalviit tumaita apunmi qauyihaghutik 2011 mi ikayuqtikaqhutik nunalingnit ikayuqtalik; 27 nit tumait takuvakhutik. Diavik-kut ilauqatauvakhutik ukuninngat aviktuqhimayumi qalviit DNA naunaiyaiblutik piliriakhaq havaktauphimayut ilaliutiqaghutik ukuninngat GNWT ukuninngalu BHP-Billiton. Uvani Diavik-kut inianit uvani 2011 mi, 18 nit tamatkiumayumit avaliqanngittut qalviit (9 nit angutit, 9 nit arnait). Tuglianit ihivriuphimayangit haffuminngat DNA ihivriuphihimayangit upalungaiqhimayut 2014 mi, qanuq ihivriuphiyangit kiutaaqhimayangit haffuminngat GNWT-nit.
- Niriliqpaktangit ihivriuptauhimaittut mannilingnit kingigyuaqtumi angmaumayumi imnarmi 2011 mi. Kilgaviit tuqutaunngittut uyaraqhiuqtillutik aulattitiblutik 2011 mi.
- Qauyihaghimayut qanganguqtumi takunnaqhuni una uyaraqhiuqtut aktuumanngittangit nayuphimayangit niriliqpaktangit iluani qauyihagtut inianit, hamnalu hulivaktut uuktuqtangit uvani uyaraqhiuqtumi hakuginngittublutik pittaliyut manniliuqtangit kilgaviinnit. Ukiunnguraangat aallannguqtiqtut uvani manniqarnirmik ilaliutauhimaittut ukuninngat aktuqtangit hulivaktunut uyaraqhiuqtumi nayugaani. Kinguani aviktuqhimayumi niriliqpaktunut qauyihavikhaat qauyihaffaarmiluni 2015 mi.
- Piqannginmiyuq ikkattumik hitiyumigluniit imaq iniani pilirihimaupuyut uvani 2011 mi, kihiani tamatkiumayangit inianit imarmiuttait uumayulingnit hiquimihimayaqanngittuni huli iluani kangiqhittaaghimayumi amihuuningit. Imarmiuttat tingmidjat takunnaqhutik uvani Kivataani Qikiqtami ikkattumi kangiqhuani unalu imarmiuttait tingmidjat huli atuqattaqtangit tahirarnit aallannguqtiqtauhimayut uyaraqhiuqtunut uvani Qikiqtami.
- Hururnikkunit ihivriuphiyut huli ihivriuphiqattaqhutik aqaguaninnguraangat uvani ukiungani 2010 mi. Niqit niqinut puungillu naniyauvaktut uvani 11 % pusaanit qauyihavakhutik uvani Hururnikkut Turaaqtitiyunit Inianit unalu 31% pusaanit pibluni kayumiittumik nunanut iliuraiblutik. Taamna adjigiikhimayut ukiunganit alraarutimit. Avatilirinirnut havaktiit huli ilihailiupakhutik havaktiit ukuninngat ihumagiyaulluaqtangit avikhiimanirnut hururnikkunit nalaumattiaqtumik.

Unalu ilaliutauhimayut huli amiqhainahuaarlugit piliriakhanut, Diavik-kut ilauqatauvakhutik katilviublutik ihivriuphiyunut piliriangit haffuminngat diamond uyaraqhiuqtunut uumayunut amiqhainirnut piliriakhait qanganguqtumi. Una piliriyangit huli aturaaqpaktangit tamaat 2011 mi ilaliutauhimablunilu qauyimattiaqtumik unalu nunalingnit ilihautikhait kivgaqtiulingnit haffuminngat pingahut diamond uyaraqhiuqtunut (Diavik, EKATI unalu Snap Tahiq), tamaat Amiqhainirnut Ikayuqtiit (EMAB, IEMA unalu SLEMA), una Kavamaita Nunattarmi (GNWT) pilirivvik Avatilirinirnut unalu Tamaittutuqait Avatikhait (ENR) unalu nunalingnit. Titiqqat naunaiyaiyut miitirutainillu turaaqtauhimayaupuyut miitirnahualiraangat ilaliutauvakhutiglu naittumik titiraqhimayut kiudjutikhait qanuq aallannguqtiqtrialingnit ukuninngat amiqhaiyikhanut piliriakhanut.

Anurium Iitquchia (Ihiq katangnia & Utigattarnit)

Avatilirinirnut pilirivvingit havaktiit huli amiqhaiqattaqhutik ihiit avataani uyaraqhiurvingmit uvani 2011 mi, taimailiupattaqhutik qangaraaluk. Aputit qauyihaiqattaqhutik upin'ngakhaliraangami. Uukturautingit haffuminngat ilainnaa piliriakhat ilaliutivaktangit auktuliqpaktangit aputit ihivriuliqhugit imaup ilaliutiqariakhaita qaffit ihiqariakhaitalu. Ihiit ilaliutait kititiqpakhugit ihivriupakhutittauq qanurilingayaugiakhaitalu inianilu huqpaniitkumi haniani uyaraqhiurvik.

Hamna itquumayauhimayuq, ihiit katakximayut amigaitqiyauubluni hanianiitkumik uyaraqhiuqtut aulattitigumik ikittumilu ungahiktumit uyaraqhiurvingmit. Hamna ihivriuqtangit ihiit katakximayut aktuumayaugumik hulipkailiraangat uvani haniani havagvianit, haffuminngalu anurium hanguliraangat.

Tamainnut amihuuningit ihiit uuktuqtauvaktut qanganguqtumi 2001 mi (ilaliutaublunilu 2011 mi) qaangiqhimaittumik itquumayauhimayangit haffuminngat tautungnaqtumik uvani Avatingnut Akturningat Unipkaarutaat (1998). Taamna itquumayauhimayangit ihivriuqtauhiabluni avataat anurium ilitquhiita uukturautainit ihivriuqhiblutik ihumagihimaittumiktauq havaktillutik angiglivalliablunilu havakhutik 2005 mi amiqhaiblutik unalu ihivriuqhiiblutik 2006 mit 2008 mut, hamna ihivriuqtangit amigaittuubluni uuktuqhimablugit. Ihiit katakximaningit uvani 2001 mi mikhihimanniqhuni ilanganit angiglivalliablunilu ahinit ihivriuqhimablutik aallanit ukiunganit; ikivalliablunilu ungahingniani uyaraqhiurvingmit, itquumayaubluni.

Aputium imangit ihivriurninga qauyihaqtut (uukturautait haffuminngat ilaliutingit iluani imaup auktuqhimayut aputit) nalunaiqtauhimayut tahapkuat ihuqhiyuq ilahimagami haffuminngat maliktakhait kigliata (una ilaliutilgit uvani Imaup Laisiat taamna Diavik-kut maligiaqaqtangit aktuqhimaittumik uukturautainit) uuktuqtauhiabluni 2011 mi tamaat aktuqhimaittut aturnaqtumi ihuqhiyuq ilahimagami tukiliuqtauhimayuq uvani Imaup Laisiat.

Diavik-kut hiqqiblutik imarmut apqutitut avataani uyaraqhiurviup nayugaanit paniumagaangami auyami ikivallianahuaqhugit ihiit ihiliuqhimayangit uyaraqhiuqtum. Uvani 2009 mi, Diavik-kut aulattitituyut uuminngat imulaaqtumik hiqumittitilaaqtumik ihirnut kitititqut tiliuqtauhimayuq nailinahuaqhugu ihiit nutqalaaqtumi nunami hiqumittailiblutik.

Uvani 2008 mi, Diavik-kut havalihaaqhuni ukuninngat anurium ilitquhiita qauyihaqtit aulattitinahuaqhutik anurium ilitquhiit iliktiqtakhait ukuninngat uyaraqhiuqtum nayugaat. Aulattitinahuarmit atuqhimayauyut aallatqit naunaiyaivikhaq haffuminngatut hilaum naunaiyaivik, ihium naunaiyaivik, gaasiliitut naamangniata atuqtauyumi unalu aallatqit ingilrutit atuqpagaat uyaraqhiurvingmi qanuq ihivriuqhiblutik anurium utiqattarnikkut. Pivalliavaakhutik iniqtauhimayut uvani Avatilirinimut Ihivriuqhiiblutik haffuminngat Diavik-kut havaariyangit uyaraqhiurnikkut pilihaaqtinnani. Diavik-kut ilitturiyauyut ilangit ihumagiyaulluaqtangit aallanguqtitqut hamna Avatilirinimut Ihivriuqhiyut (haffuminngatut, havaktaulluaqtaubluni naahurihimayangit) unalu taimaittumi, nutaamik aulattitihimayangit iniqhimayaubluni uvani 2011 mi qauyihaiblutik anurium ilitquhiita qauyihaiffaarmiyuq. Una Avatilirinimut Anurium Ilitquhiita Amiqhainimut Piliriakhait titiraq turaaqtauniaqhuni uvunga GNWT-ENR, Avatiliriniq Kanata unalu EMAB ihivriuriani atuqtumi 2012 mi.

Ukiunnguraangat, Diavik-kut kititiqpaktangit amihuuningit haffuminngat ulikturnium puyurnium piliuqhimayangit nalaumayumik gaasiliit atuqhimayauyut naunaiyaiblugillu ukuninngat maliktakhautitut; uvani 2011 mi, amihuuningit aulayuittuni adjigiikhimayangit uvani 2010 mo unalu tamatkiumahimayangillu 199,000 uqumainninga haffuminngat CO₂e. Puyum Anialailaqaataat piliuqtauhimayut aallatqiiknit. Uvani Diavik-mi, atuqtauyut gaasiliinit (haffuminngatut ingniqutikhait, qulliqinimut uunaqutikhainlu) atuqtauvakhuni haffuminngat puyum anialailaqaataanit.

Taryurmiuttat Aktuumayangit (Tahiup Imaa Ilitquhiat & Iqalup Aanniaqtailidjutta)

Diavik-kut huli amiqhaivakhutik ukuninngat Taryurmiuttat Aktuumayangit Amiqhainirnut Piliriakhat (AEMP) 2011mi. Hamna arvinilit hitamaubluni ukiunganit haffuminngat taryurmiuttanut aktuumayangit amiqhainirnut, pigiaqaqhutik haffuminngat Diavium imarnut laisikhat. 2011 mi tallimaat ukiunganit hamna AEMP aallannguqtiqtaubluni ilaliutinahuaqhugit pingahut avikhimayut angmaumayut imarmit ihivriughiyut huliunit (Julai, Aagasi, Saptaipamilu) haffuminngalu hikut pulahimayut ilihautikhanut piblutik Aippu, Mai atulihaaqtumi. Hamna pingahut ukiukhami ihivriugtauluni haffuminngat piliriyit iniqhimabluni 2011 mi taamna akhuuqhutik pivalliangani uuminngat Pitquhiinnik Avatiqarnirnut Qauyimayangit amiqhainirnit piliriakhanit iqalunit unalu imarmi pilihaaqhutik 2011 mi unalu havaarluni 2012 mi.

Nalunaiyainiq kititighimayut hamannat AEMP nalunaiqtauhimablunilu aktuumayangit uvani Lac de Gras ilagiikhimayangit haffuminngat uyaraqhiurnikkut huliblutik. Mikiyumik aallanngayut imarmi ilaliutilik (nakuurutata), amiakkungit ilaliutait (nakuurutata) unalu taryum iluani uumayut hauniganngittumik (mikiyut huraat tahirmiuttat amiakkuungit) uuktuqtauhimablutik, pivalliahimayut angiglivalliablutik niqainnatqiyaulingnit. Tamainnut, hapkuat aallannguqtiqtauhimayut nalunaitqiyablutik haniani uyaraqhiurvingmi (haniani-manirarmi ihivriughiyut nayugaanit). Diavik-kut pivalliablutik ilainnaanit iqaluk ihivriughiblutik ihuurnit uvani aallatqiiknit nayugaanit uvani Lac de Gras uvanilu Lac du Sauvage ihivriuffaarmigialik ihumaalutigiyangit ukuninngat amigailiqhutik hivuuranaqtumik mercury uukturautainit iqalut iluaniittut. Kiudjutingit haffuminngat 2011 amiqhaiyunit takunnaqhunilu angiglivalliablutik hivuuranaqtumik mercury nit 1996 –nguqtillugu. Hamna angiglivallianinga piniqhuni tamainnut Lac de Gras unalu Lac du Sauvage (kuugap hivuani uyaraqhiurvingmit), taimaa ilaliutauhimaitungnaqhibluni uyaraqhiurnikkut aulattitiyunit.

Unipkaat Titiraqhimayangit ukuninngat Diavik-kut

Uvani 2011 mi 2012 –ngulihaaqtumilu, Diavik-kut turaaqhimagaluaqqut unipkaagakhait unalu aulattitiyunut upalungairutikhait maliktakhanut haffuminngat Wek'ëezhii Nunamut Imarmullu Katimayit, una Pilirivik Iqalungnut Taryurmiuttanullu, Inulirinikkut Pivalliyut Kanata unalu Qutingnikpaakkut Pivalliyut Kanata unalu Avatilirinirnut Taimaitutuqqauyut Avatingnut. Hamna ihumagiyaulluaqtangit haffuminngat unipkaagakhanut naittumik titiraqhimagiaqaqhuni tamainnut aahiit unipkaagakhait upalungairutikhainillu.

Aulattitinirnut Huliyakhautit

Uvani 2011 mi, Diavik-kut pilihaarniqhutik 6.7 milianit During 2011, carats diamondsniit, ilaliutihimayangit ukuninngat 6.5 millianit uvani 2010 mi unalu 5.6 millianit uvani 2009 mi (nutqaraluaqhimagaluaarmata 2009 mi). Tamainnut naahuriyauhimayangit taamna Diavik-kut kititighimagaluaqqut huli ikilivalliahimaliqhuni hivuani ukiukhami.

Uvani atulihaaqtumi 2011 mi, atulluaqtakhait ingilrutait, ihuaqutikhaitu unalu uqhuryuakhait ukiunnguraangat parnautikhait agyaqtauhimagaluaqtut nayugaanit ukiumi apqutaani angmaqhimabluni Januari 28 mi Aippu 1 mut.

Ikivallianingit (ikaagakhait) huli ikaagakhaliuqtauvakhutik ukiunganit taimaa havaktiit havakhimmaariangani nunam iluani uvani A154 unalu A418 kimberlite tuqhuanganit. Kihiani Diavik-kut

nunam iluani uyaraqhiurnikkublutik uvani A154 unalu A418, qauyihagtut unalu uyaraqhiuqtut huliyaqhait pinghuanit kimberlite tuqhuaq, A21, nutqakkaffukhimayaublunilu.

Uvani 2011 mi, Diavik-kut In 2011, Diavik tuhapkaihimablutik hanahimayumik haffuminngat hitamat anurium ingilrayunit pivalliyuq uvani uyaraqhiuqtunut nayugaanit. Una havaariyakhat, ilaliutauhimayuy hitamat 2.3 megawatt anurium ingilrayunit, naahuriyauyut aulapkainahuarlugit ukiukhami 2012/13. Diavikiup anurium ingilrayunit, taimaa nunaryuam hivulliuniaqhuni aulapkaigumi niglaumaninganit 40C, nailihimaniaqtangillu ikayuutigiyavut haffuminngat uqhuryuanut gaasiliinut nailipkailaaqhimayut adjikkutaanit tumiliuqtangit.

Kavamatkunit Ihumaalutait

Diavik-kut aittuqtauhimayut turaarutata haffuminngat Avatiliqiniup Amiqhaiyunut Turaarutikhait Katimayit uvani ukiunganit unalu naittuq titiraqtauhimayuy haffuminngat turaarutikhaq (uuminngattauq Diavik-kut kiuhimayngit) naniyaulaaqhuni titirarutaanit haffuminngat unipkaagakhaq.

Hamna iniqtaaqhimayuy titiqqat nunaqatigiiktut pulaaqhimayangit naunaitkutaat ilaliutauhimayuy Ilainnaanit 6.2 ukuninngat unipkaarunmi. Miitirutikhait upalungaiqhimayuy ukuninngat Tlicho Kavamangit, Kitikmeot Inuit Katudjiqatigiit (KIA), Yellowknives Dene Hivullit Nunaqaqaaqhimayunut (YKDFN), Lutsel K'e Dene Hivullit Nunaqaqaaqhimayunut (LKDFN) unalu North Slave Metis Katudjiqatigiit (NSMA). Diavik-kut tuniyauhimaattut turaarutikhait haffuminngat kavamatkunnit ilaliutihimayangit avatikhanut ihumaalutainit 2011 mi.

Qauyimattiarnikkut

Uvani 2011, Diavik-kut huli pinirluknit ihivriuhiiyut nutaamik qauyimattiaqtakhainit aturiangani uvani uyaraqhiurvingi nayugaanit. Aturlugillu anurium qulliliqivikhait taimailiulaaqhimayumi haniani hivuani unalu Diavik-kut ilirailiqhutik hitamanit anurium ingilralaaqtumik uvani atuqtumi 2012 mi. Ikayuqtaulutik haffuminngat nunalingnit ikayuutik, ihivriuttiaqhimalugit ittarnittaliginirnut ihivriuhiyunit havaktauhimagaluaqqut Saptaiippa 2010mi uvani nunami naunaiqtauhimayunit nayugakhait ukuninngat anurium nappaqtauvikhait. Hamn anurium ingilrayunit havaariyakhait katimadjutigihimayaubluni ukuninngat maligakhautikkut unalu nunaqatigiiktunut uvani 2011 mi. Hamna arlingnaqtuq havaariyakhaq qutingnikpaakkunut unalu amihuutaublutik qauyimattiarnikkut akihautainit. Hamna nakuubluni taimailiuhimayuni maniliurutikhainit uukturnahuarlugu nutaamik qauyimattiarnikkut taimaa atuqtaulaarungnaqhibluni nunalingnit taimaa atuqattaqhimaittumik nailinahuarlugillu uyarannuqhimayunut uqhuryuat atuqattaqtangit tamainnut Qutingnikpaami.

Diavik-kut iliuraimablutik nutaamik uunaqutikhait 2011 mi. Una havaktauhimaningit iliktirutikhait iniqtaaqhimablutik, tunngavikhaat hauhimayaublutik, igluliuqtakhait unalu uunaqutikhait kititiqtauhimablutik. Havaakhaq havaariyakhait huli havaktauniaqqut, taimaa naahurihimablutik aallanut nuuktirlutik atuqhimalutik nutaamik uunaqutikhait uvani 2012 mi.

Diavik-kut huli qiniqhiaqhimmaaqhutik aallatqiiknit inikhautikhait qanuq uyaraqhiuqtakhainit una A21 kimberlite tuqhualingnit ataani Lac de Gras.

Avatiliqinirnut Amiqhainirnut Adjigiiktamingnit Kangiqhiirutainit

Iluani Ilaliutaanit B, titiraqaqhuni taidjutilingnit Apluraqtumik Akttumayauyut Naittuq Titiraq. Una ilainnaa haffuminngat unipkaa qaqhimayaubluni qanuq avatiliqinirnut amiqhaiyut adjigiikhimayut ukuninngat kangiqhiirutainit iliyablutik haffuminngat uumayuliqiniq, nauhimaviniit, hilaum mikhaanut, iqalut imauplu. Tautukhimayangit kiudjutaanit haffuminngat 2011 mi unalu aippaanirnittanit adjiguhiutaanit haffuminngat nanminiriyaraluangit kangiqhiirutainit.

Taimannut, avatikhanut amiqhainirnut takukhauvakhutik akturnianit haffuminngat Diavik pibluni ataanit Avatiliqinirnut Ihivriuhiiyunit kangiqhiurutait, haffumiunngittumik kivingniat ihiit amiakkuungit unalu angilivallianingit avikturnia aktuumayangit tuktut hanianiittut uyaraqhiurvingmi.

Angiruat

Uvani 2011 mi, Diavik-kut angiriqhimaqatablutik uuminngat nunamut atuqtauuyunit unalu imaup laisiatigut. Hitamanit hulihimablutik naittumik kuhiqtauhimayut taimaa imait kuhiqtauhiiningit hanahimayunit. Atauhiq nayuqhimayangit malrurnik kuhirniqaqhuni kivittauhimayut ammonia, zinc, havigalik unalu pH aturnaqtumik (1645-24, ikkattut kangiqhuit), aallamiktauq kivittauhimayut zinc aturnaqtumik (2008-SEEP-01, ikkattut kangiqhuit) unalu hitamaat kivittauhimayut zinc unalu nitrites (2011-SEEP-01, tahiraq 2). Pingahuattauq haffuminngat aktuqtauhimayut Lac de Gras naittumik ingilrahimagaluaqut.

Una Ihivriuqti haffuminngat Nunaqaqaqhimayumi Inuulirinirnut Kanatami (AANDC) pulaaqhimagaluaqtut Diavik ihivriuhiihlutik arvinilingnit (6) pulaaqhimagaluaqut 2011 mi. Tukiliutait haffuminngat ihivriuhimayangit ilaliutauhimablutik iluani Naittuq Titiraqhimayut Angirutaanit ilainnaanit haffuminngat unipkaarunmi.

Avatilirinirnut Amiqhainirnut

Titiraqtaaqhimayumi A1 uvani Ilaliutaanit A mi kingulliqaarmi unipkaarunmi ilaqaqhuni una naittuq titiraqhimayut haffuminngat aallatqiit avatikhanut amiqhainirnut iniqhimayumi Diavikmi 2011 mi, haffuminngalu naittumik tiliuqtauhimayut haffuminngat hulivaktumik kiuhiimayarniglu. Hamna titiraqtaaqhimayut ilaliutauyut ukuninngat:

- Ihiq Hilaum amiqhainirnut;
- Amihuuningit unalu nakuuqpiagtumik imaup;
- Imarmiuttait aktuumaningit;
- Uumayut unalu uumayunit nayuqpauhiat (nauhimayunit);
- Iqalukhiurnit; unalu
- Amihuuyut ilinniarvigyuangit ilihautiyut ilihaqhimataaqut.

Tukiliutait Nailihimayauyut (nailiyauhimayut taihiniit nalvaaqtauyut uvani unipkaagakhami)

AEMP	Imarmiuttat Aktuumayauyut Amiqhainirnut Piliriakhaq
ARD	Uyararluktumik Maqiyauyut
ALDP	Nunaqaqaqhimayumi Hivuliqhiyunit Pivallianiit Piliriakhaq
CCME	Kaniitian Katudjiqatigiit Ministauqatigiit Avatilirinirnut
DIAND	Pilirivvik Aallait Ilitariyauhimayut Qutiknikpaakkut Pivallianiit
DDMI	Diavik Diamond Uyaraqhiuqtut Inc.
EA	Avatiliqinirnut Angiriqhimayauyut uuminngaluniit Avatiliqinirnut Ihivriughiiyut
EAAR	Avatiliqinirnut Angirutaanit Ukiukkut Unipkaagakhaq
EMAB	Avatiliqinirnut Amiqhainirnut Kiuqattaqtut Katimayiit
EMS	Avatiliqinirnut Aulattitiiyunit Ikayuutit
ENR	Avatingnut unalu Taimaittutuqauyut Avatikhait
GNWT	Kavamaita Nunattiarmi
HU	Nayuqpaktangit Ilaliutait
INAC	Aallat Ilitariyauhimayunit unalu Qutingnikpaakkut Ikayuqtut Kanatami
ISO	Nunarjuarmi Hivunikhaliuqtangit Timiuyut
ICRP	Nutqakkaffukhimayut unalu Himmauhiffaarnikkut Upalungairutit
MBLWB	Mackenzie Valley Nunanga Imauplu Katimayiit
NIWTP	Noqth Inlet Imaup Amirittiaqhimayauyut Imaqarviat
NTU	Nephelometric Turbidity Ilaliutait (uukturautihimayangit imaup turbidity)
OLDSSF	Nunamiittut Hauhimayauyut Amiakkut Tutquumaviata
OPCP	Aulattitiiyakhainit Ilainnaa Kiuyakhautit Upalungairutit
PK/PKC	Pivalliahimayut Kimberlite/Pivalliahimayut Kimberlite Ilaliutilgit
PVP	Aulayuitut Nauhimayut Nunaa
QA/QC	Nakuuqpiaqtut Ukpqtauhimayut/Amihuuningit Atuqtakhat
SNP	Kamigiyauttiaqhimayauyut Havaqatigiiktut Piliriakhat
SOP	Atuqattaqtangit Aulattitihimayut Piliriyiit
TSS	Tamainnut Nutqaqtauhimayut Piquitait
USEPA	United States Avatiliqiniup Hapummivikhait Ikayuutikhait
WHMIS	Havakhuni Hivuuranaqtumik Atuqtangit Naunairutaat Ikayurvikhait
WLWB	Wek'èezhii Nunat Imauplu Katimayiit
WMMP	Uumayunit Amiqhainirnit unalu Aulattitiiyunit Upalungairutikhaq
WTA	Huruqhimayut Agyaqaqtauyut Nayugaat
ZOI	Avikturningat Aktuumayauyut

Tukiliutait

Amihuuningit – kititiqtauhimayut uuktuqtauhimaluniit quyaginnarnut uuktuqtangit

Hungiutyunnaqtut Aulattitiniq - aulattitihimayut inikhautikhanut ilihautiblutik amiqhaiblutik kiudjutaanit aulattitinirnilu huliunit ihuaqhiyuummirnahuarlugit aulattitiyunut uuktuqpaktangit

Imarmiuttait Hauniqanngittut Uumayut – mikiyuit kumait hauniqanngittut nayuqhimayut iluani amiakkut ataaniittut tahirmi kuugarmilu; ilaliutaulaaqhuni niviuvaat, qupilguit, uviluit taimaittut.

Ahivaqtauningit Uukturautait hamna kayumingningat taamna nutqaqhimayut qaanganiittut, haffuminngatut, qanuq kayumiittut/kayumiktut mikiyunnuaq nuna katakpaktuq imarmut nutqaqhutik ataani tahirmi

Turaaqtititiniq – qanuq atauhiinnaq hunaugumi hiamilaaqhuni tamaat inianit

Hururnikkut – halumayuq/nutaanguqtiqtauuyuq imaq anaqtautimit uuminngaluniit imaup nutaanguqtirvianit ahivaqtauhimayut halummaqtaaqhimayut

Ihuaqhiyaunniqtut – ilaliutauhimayut haffuminngat ilainnaat ihuqhiblutik nakuuqpiaktumik; ilaaqtuivallaarnurumik, taimaa nailipkalaqtangit nakuuqpiangit

Avatilirinirnut Ihivriuqtangit – pivallianingit ihivriuqtankhait ihumagiyauyut avatikhanut aktuumayangit haffuminngat havaariyakhait ihumagiyaulluaqtangit pivalliyakhait ihumaliurlunilu hamna havaariyakhait pivallialaaqhutik

Qayangnaqtut Ilaliutlilgit Eutrophication – imaq timingit haffuminngatut tahiq aittuqtauvakhutik niqinnatqiyaanit ikayuutikhait unalu angiglivalliavakhutik nauttiarmi iluani imarmi

Nayuqpaktangit Ikayuutikhait – himmauhiqtut nanminiriyangit nayuqpaktangit huliliraangami uyaraqhiurvingmi; taimailiupqakhimayut aturaangami hanauyaqhimayangit inuup ilitquhiitat inikhaliuraangami nanminiriyangit nayuqpauhianit

Kingiktumik-uukturautait Aktuumayauyut – aallannguqtiqtauuyut naunaittut haffuminngat aallatqiit inianit kingikpallialiraangamit angirutaanit uuktuqtangit

Nutqakaffuungnianut & Himmauhiqtaarnikkut Upalungairutikhaq – una titiraq tukiuhimayaubluni inikhautikhait qanuq nutqarnahuariangani uyaraqhiurvikhmut, ilaliutauhimayurlu qanuq piyumayainnit imarmut, nunamut uumayunullu. 'Nutqakaffuk' tukiqaqhuni imaa nailipkainahuarlugu kingulliqaam upalungairutikhaanit, huli apiquutiqaqhunnittauq kiugialik atulihaariangani hamna kinguani tukiliutait uuminngaluniit upalungairutikhait pigialik.

Ikittumik-uukturautait Aktuumayauyut – pilihaarumik – pinahuaqpalliagumi uuktuqtangit aulayuittumik aallannguqtiqtauuyumik naunaiqtauhimayut

Ingattaqhittailinahuarniq Uukturautainit – hulinnirumik aulapkainahuaqhugit pittailinahuaqhugilluniit
hivurarnaqtumik pittailinahuarlutik

Aktuumattianngittut – ilainnaa aallannguqtiqtauhimayut naunaittut haffuminngat aallatqiit inikhait
pilihaaqhutik kingikhuni haffuminngat angiqtaaqhimayamingnit uuktuqtangit

Amiqhainirnut – inilik qiniqattarlutik hulivaktangit unalu ihivriurlugit qanuq naahurihimayarnit kiuviniit,
taimaittumik quyaginnag aallannguqtiqtaugumik

Kiglikhautait – ilaliutilgit unalu naunaittumik naunaitkutaat atuqtaugialik qanuq hamna imaq nunaaluniit
nakuugumik

Nuvuyak – nuvuyauyuq anurium, imaup nunaluniit aktuumayaugumik hanianit hunaugumik,
haffuminngatut, nuvuyaum puyum hanianit nuna qaaktuigumi

Kangiqhiirut – taamna ilitturnaqtumik kangiqhiyangit qanuq pinahuarnirumik hivuani, atuqtaulaaqhunilu
atuqhimayamingnit qauyimayangit ilihimayangillu huliblutik

Aturaarluni Himmautauiniq – atulihaaqtumik ihuaqhaiyut hunanik inikhaanit nunap hiqumitkumi
uyaraqhiurnikkut huliblutik aulattitiblutik; hivunigilugu inikhaat humili uyaraqhiurnikkut huliblutik
iniquhimayarnit

Qauyiharniq – aulattitihimayut iniat uuktuqhimayamingnit apiquutit qauyimanngittumik ilitquhiit
avatikhanut, haffuminngatut hungmangaat aallannguqtiqtaublutik

Qayangnaqtumi Ihivriurnikkut – inikhalik naunaiyaigiangani qayangnaqtuqarnirumik aktuumayaayut
qanuq qunniarluni hapkuat hivuranaqtumik aktuqtaugumik qanurlu takunnaqhunilu. Kinguani
qayarnaqtut naunaittaaqhutik, aulattitinirnut huliunit tukiliuqtauhimayut.

Amiakktut Ilaqaqtut – una ilaliutilgit nuna ilaliutainit nutqaqhimayut ataani tahiup

Kuhirnia – kuhirnia imarmi uuminngaluniit kuhilaaqtumik kuhiqhimayut ukuninngat ilaliutilingnit inianit

Niqainnatqilingnit Ilitquhia – uuktuqhimania tahiup hulivaktangit qanuq nauhimayulingnit nauqaqtumik
iluani tahirmi

Imaup nakuuqpauhiat – tamainnut ilitquhianit haffuminngat ilaliutilgit (niqinnaqtunit uumingaluniit
havigaliit), ilitquhiit (uunarningat) unalu nanminiriyangit (nunaliktut) ilitquhiitat imarmit iluani tahiup
kuugaaniluniit

Kigliata Aktuumanianit (ZOI) – inianit hapkuat anngutikhait ikpigiyaulaaqhutik haffuminngat
uyaraqhiurnikkut hulivaktut, taimaaluniit qanuq ilaliutinahuaqtangit uuminngaluniit iqhitaqtaunnirumik

K'aldé Nedhé Délthi Bets'i Zereht'is

Ƴediri ghayé t'ánélt'u Diavik zereht'is delth'is Ƴeyi háyurɫa chu Environmental Agreement (the Agreement) húlye chu t'at'e sí ghá dēne xél náyaltı Ƴat'e. Ƴeyi Agreement yé yatı thela Article 12 sí bek'e yatı thela gháre Ƴeyi zereht'is delth'is xáɫa, Ƴeyi yatı gháre t'at'u zereht'is yé yatı níhıle yegháre yíle xáɫa. Ghayé t'ánélt'ú Diavik tsamba k'é náre háyurɫa dáhála sí dēne xél náyaltı Ƴat'e, Ƴeyi zereht'is xalé beyé t'ahadı sí ghá. 2012 ghayé húnidhër-ú, Diavik háyurɫa dēnexél nádayaɫtı Ƴeyi ní t'at'u yeghálahēnə sí ghá, Ƴeyi hanı níhıla sí 2011 ts'ı Nı ghá yatı t'á Ƴelk'óret'a ghá ghayé t'ánélt'u zereht'ı dehet'is sí ts'jı.

Diavik chu Environmental Monitoring Advisory Board (EMAB) bek'e ts'éth'i chu.

Ƴeyi Environmental Agreement zereht'is delth'is-u tth'i dēnezı bek'é nílya hıle Ƴat'e Nıts'ı Cho Za 2000 kú. Ƴeyi beyé yatı thela t'a ghá náyaltı sí Ƴeyi Diavik-u, Dēne government-u tth'i Federal chu Territorial government t'at'ú hubet'azı xáɫa sí xa t'e. T'a Ƴazı bet'órezá sí Ƴeyi agreement t'a harelyu yeghá Ƴelk'óret'a t'a xa yehet'ı nı sí Ƴeyi Diavik tsamba k'é Ƴeghálana gháre ní tsédhir ch'á yehalnı xát'e. Ƴeyi gháre tth'i Advisory Board k'e dēne yak'edélth'i xa bednáltı snı t'á – Ƴeyi EMAB húnidhër, Ƴeyi Diavik chu t'a bezı yek'érílt'is sí Ƴeyi begħathēn Ƴats'édı Ƴat'e.

Ƴeyi EMAB Board sí Ƴıághe representatives húlye yek'e theda sí t'a parties húlye bezı zereht'is k'e níla sí Ƴarat'e. Há'te hılı náyé Ƴasıe ghá nánahadé Ƴat'e, Ƴeyi sí t'ok'e ní k'e t'ul dóhót' sí (tú t'at'e sí-u, ch'adí-u xat'ı sí) xat'ı Ƴasıe ghá xél tth'i Ƴeyi ní gha zereht'is xalı ní Ƴeyi gháre t'á Ƴeyi Ƴedéná betsı Government of Nunavut ts'ı Ƴıághe Ƴeyi EMAB k'e theda xa nıltı. Ƴeyi t'a Agreement gháridel sí zereht'is k'e Table 1 húlye k'e thela Ƴat'e.

Table 1: Ƴeyi t'a Environment Agreement k'e Délth'i sí

<u>Lıchághe Government</u>	<u>Beghúldesche Dēne First Nation</u>
<u>Government of Canada</u>	<u>Kitikmeot Inuit Association</u>
<u>North Slave Metis Alliance</u>	<u>Lútsəl K'é Dēnē First Nation</u>
<u>Government of the Northwest Territories</u>	<u>Diavik Diamond Mines</u>

Ƴeyi EMAB t'at'ı ıa hubets'ı sí – Ƴeyi naye t'a ıa sí Ƴeyi Diavik hubets'ı t'at'u ní ghálahena xa hedı sí-u, zereht'is heghá-u, tth'i hubets'ı programs tth'i ní ghá-u, t'a bezı níłá-u, háyurɫa dáhála t'at'ú bexél xáɫa-u, dēne ch'anié xél Ƴegháladá-u

tth'í zasíe ghá núúdhër dé reyí tth'í xa yatí hełá xa thela zat'e. ?eyí t'á Board k'e déltth'í t'á xél zehádálana sí reyí Dëne hárelza bezí nílá sí-u tth'í háyuríla dáhála Diavík yurekér xa zedíre ní badí sí xa programs t'at'u sughá-u beghálada lí sí xa.

?edírí zereht'ís det'ís sí reyí ní hadí monitoring program húlye hubets'í zek'éch'a ní ghá zereht'ís dáxıghá ts'í yatí gháre yerít'ís zat'e. ?eyí beyé yatí thela sí reyí Diavík t'a náhadhër sí xél zat'e, harelyú dëne t'a zasíe ghá náníde sí ghá-u, ní t'atthe t'at'e ní sí-u, dú t'at'e-u, yunedhé t'at'e xa hunídhën ní sí-u, zedírí Diavík zasíe godhé k'aní yuréldzay ts'éñ tth'í yeghá náníde zat'e, tth'í INAC Inspector t'at'u zak'onełtá ghá tth'í yatí xalı xél ıla zat'e.

Diavík bets'í Tsamba K'e chu Ní Ta't'ú Xázá chu

?eyí Diavík bets'í Tsamba K'e t'ok'e nít'á sí zeyër tth'ís nuaze k'e, reyí nuaze Lac de Gras ts'í tth'ís ts'éñ háza zeyër zat'e. ?eyër Diavík tthe diamonds húlza sí reyí kimberlite (tthe dëldzen láhat'ı) pipe húlye yé zat'e, zeyër Lac de Gras ts'í tth'ís ts'éñ háza nuaze ıabághe húlza zat'e. Lac de Gras tu theza sí zek'etoná dechën zıñnëth zat'e zeyër Beghúldesche ts'í yutthé toná dechën zıñłtha ts'éñ zat'e. ?eyí tu theza sí ııłts'us K'atı Za dé hetën-u tth'í zeghës Za húnídhër dé nalxı zat'e. ?eyí Copper River húlye ts'éñ nílí zat'e.

?eyër Tsamba K'é begá t'at'í ch'adıé dólí sí saschogh-u, nunıyé-u, nághai-u, naghıdhé-u, gah chogh-u, dlíe-u, dluné lárát'e-u, k'asba-u tth'í zeyíle zek'éch'a ııyësáze dólí. ?eyí Bathurst zetthën húlye lúké chu xayt'ás chu dé zeyër zanaré nolł'ıı ııłt'e húlí reyí tth'ís nuaze ts'éñ húlł'ëth zetthën ıa kózı zat'ı cho ıíle.

?eyí tu theza benaré zél lát'ı dıkes húlye t'á bedárgelya-u beyé tu theká sí beyé hádzıl-u xat'ú t'a reyí bet'ághe tthe diamonds húlí sí beghálada-u beghá nahút'e. ?eyí t'atthe zél (A154) xalı t'o beghá nahút'e sí 2002 kú, zeyër ts'ı tsamba k'é ghádálada húnídhër yuní 2003. ?eyí bek'éñı zél (A418) beghálada húnídhër sını 2005 zeyër ts'ı 2006 beghá nahút'e t'á 2007 zeyër tth'ı beghálada húnídhër. ?eyí zél bezí huts'ı sí reyí kimberlite pipe beyé húlí t'orólye sí bezí t'á yúzı zat'e. Tth'ı bek'éñı tthe kimberlite pipe A21 húlye húlí zat'e zeyër Tth'ís Nuaze begá Lac de Gras háza bek'e. Diavík zeyër A21 kimberlite húlye húlí ts'éñ níá yághe núníza hełtsı yuní 2006 kú, hat'e húlí begháláda zat'e ıíle. Diavík yuní 2008 kú reyí A21 la sí dú xa beghálodáıle hedı.

2011 ghayé kú Diavík harelyú t'á lóta xayé zehádálahená. Dı sí Diavík reyí tthe diamonds hılchu dé zeyër ní háyurıla open pıt mıning húlye ts'ı hılchu zat'e

xél tth'í zeyí t'a kimberlite begháhádhër níéyághe ts' hílchu xat'e. Nades ts'én hadhër dé, Diavík zeyí ní háyurqla daghe zeghalahenā yeghā nazít'e dé níéyághe hūhí ts'í kimberlite hílchu xat'e. Zeyí kimberlite ní háyurqla ts'í hílchu sí-u tth'í nades ts'én hadhër dé níéyághe ts'í tthe hílchu sí tth'í tlesbeschënë yé t'a beghálada ts'én zelánalyí xat'e, zeyër t'a nált'és-u x-ray t'á zeyí tthe diamonds bet's'í hílchu xat'e.

Diavík sí zate háyurqlazáze lat'e zat'e – zeyër náts'ede k'é xázā sí nats'etís kúé xázā-u, shets'elyí kúé-u, zereht'ís ghálada kúé-u, tu ch'élé hadí kúé-u, tu ch'élé zádíl k'é-u, zasíe sureldhën ghálada kúé-u, zúdí kón ghálada kúé tth'í dzeret'áy k'é xázā. Tónónā ts'én solónā dechën zaniłtha xaye tlıú xalé zat'e bek'e Diavík chu zeyíle tsamba k'é dáhála ts'én zasíe zelánalyí xa. Xaye tanéllt'u zeyí xaye tlıú bek'e t'a zelánalyí sí tles dōghé lát'í-u, thay cement-u, bet'á ye xalé xa zasíe-u, tles beschënë-u, bet'á zasíe gháladá-u, nats'edé xa zasíe-u, tth'í beghadhën zeyíle zasíe zelánalyí zat'e. Xaye húdhër dé ts'eret'áye t'á Diavík ts'én zasíe zelánalyí zat'e.

Begháré Ní Beghálada

Diavík zeyí Environmental Management System, EMS tth'í yehúshe zat'e, bet'á zeyí t'at'ú ní xázā badí sí zāze húzú zálye xa. Zeyí Diavík bet's'í EMS t'a gháré zasíe xa húltá sí zeyí ISO 14001 húlye sí zereht'ís nedhé zet'áılchúth zat'e, zeyí sí harelyú néné bek'orejā zat'e. Zeyër tsamba k'é t'anáhadhër (xél t'á zedārelye-u, tthe zelánalyí-u, zedí kón zet'él-u, ts'eret'áy nanedíl-u) bet'á ní bet's'én náhadhër zat'e, zeyí t'á EMS begháré zek'ázū xázā zat'e.

Zeyí EMS t'at'ú hálzā sí zeyí t'at'ú zeghálada xa sí-u, ní xa tth'í ts'étáy surldhën-u, tth'í zeyíle beghathën zeyí k'ízí zereht'ís hegā zedırı xél nílye xat'e, tth'í t'at'ú zelts'én dáyats'eltı ts'étáy surldhën-u tth'í ní ghā t'ohót'e sí ghā zereht'ís k'áhaní xázā. Ts'étáy sezút'ée t'á xázā xát'ú dé zāzı húzú ts'én t'at'e xát'ée xa – zedırı dat'ú t'a EMS xázā zat'e. Zeyí zeghálada badí ts'í zéné-u tth'í zasíe k'oneta zeyí t'ā dayenelı sí zeyí Diavík xa zeghádálana-u, háyurqla dáhála-u, t'ā begháré zeghádálada sí-u zedenı t'a zeyí programs dólı beghálada t'at'e sí xa yenelı zat'e. Zedırı gháré yunedhé xāza t'at'ú zāzı nezú zeghálada lí sí net'ı xat'e. Zedırı zereht'ís xél zeyíle zereht'ís xalı thela (Table A2, Appendix A) zeyí sí t'at'ú Diavík harelyú ts'én ní xél zeghálana t'abúrelı sí ghā zat'e. T'a ghā ts'edı sí zeyí zasíe ch'élé hónenı-u, zasíe bech'ónejër sí-u, ch'adíe-u, tthay ts'eréth'ay-u tth'í tles lére t'a hunídıl sí tth'ı.

Ƴeyı ISO 14001 Ƴerehtł'ıs begháilechúth sí gháré yek'élnı hurélı dé, Diavık bets'ı EMS xaye t'álnelt'u Ƴaté net'ı xáƳa Ƴeyı sí 2011 Ƴelets'elts'ús Za háyızıla Ƴate.

Ƴeyı Ƴasíe Ƴate net'ı sí bánélt'u t'a hálƳa sí chu yuz'éne ts'ı dëne Ƴasíe Ƴate danelı Ƴat'e t'at'ı Ƴasíe dánét'ı lazı gháré, tth'ı Ƴeyı gháré Diavık Ƴerehtł'ıs ISO 14001 yegháre Ƴeghálana nıde xa badı Ƴat'e. Ƴeyı yuz'éne ts'ı dëne Ƴasíe dánéłı third party expert húlye (dëne Diavık benılíle sí) Ƴeyı t'a EMS t'at'ú hálƳa sí yenełı Ƴat'e. 2011 kú Diavık bets'ı EMS bek'ónetá gháre Ƴeyı ISO 14001 Ƴerehtł'ıs begháilechúth nı yek'élnı halyá.

Ƴedú nıhúdhır bets'eldı bazı beghálada

Ƴeyı Agreement yé yatı thela sí Ƴadı-u Ƴeyı Diavık bets'ı ní xél t'at'ú yeghálada xa ts'étáy surıldhën chu bets'ı programs dólı sí Ƴeyı ní bedzeldı ts'ën Ƴeghálada xa yatı thela xél yíle xa kú tth'ı Ƴeyıle beghádhën yatı thela ní Ƴedú Ƴáne bazı Ƴeghálada sí k'ázı xa ts'ën xa yatı thela xel tth'ı yíle xáƳa.

Dı t'at'e sí Ƴeyı Ƴasíe Ƴedú Ƴane bedzeldı bazı ts'ën Ƴeghálada xa Ƴadıızı néne xa xat'ı yatı begháre xáƳa xa hıłı Ƴat'eíle, xat'e húlı Diavık t'at'ú ts'étáy surıldhën xálƳa chú bets'ı programs dólı gháre Ƴeghádálahená dé t'at'ú súghá-u hıızı ts'ën ts'étáy sehút'e hálƳa-u Ƴeyı sí plan-do-check-act húlye, Ƴeyı gháre t'at'e lası gháre hedú nalye xadé xáne xat'e; tth'ı Ƴasíe Ƴesóhót'e dé seyıle Ƴeyı hát'u Ƴasíe Ƴedú Ƴane bedzeldı bazı ts'ën Ƴeghálana xa yatı hełts'ı t'a. Ƴeyër Diavık k'é Ƴasíe Ƴedú Ƴane bedzeldı bazı ts'ën Ƴeghálada t'a ts'edı sí:

- Ƴeyı tthay ts'éretthey t'ok'e bek'onetá t'at'e sí gháre nıłts'ı t'at'e beghálada Ƴat'e.
- Ƴeyı Ƴasíe k'oneta Special Effects Studies húlye t'a ts'ıžéné búnıdhër tehyághe Ƴasíe k'oneta Aquatic Effects Monitoring program húlye t'a (Ƴedırı Ƴerehtł'ıs yé Ƴaıı beghá náyatı xat'e; tth'ı
- Ch'adıé t'at'ú badı nı xa programs nı sí Ƴedú tsën beghálada Ƴájá kú Ƴeyı yunı ghayé dóhódher t'anahodhër ııle nı sí gháre Ƴálya Ƴat'e;

Ƴasíe hadı beghálada

Ƴedırı Ƴerehtł'ıs Ƴate t'a ghá náyatı sí Ƴeyı Diavık t'at'ú ts'étáy seı'e chú bets'ı programs chú t'áhát'ı Ƴeyı ní Ƴeyër tsamba k'é Ƴanáre t'at'e sí xa net'ı Ƴat'e.

Dü redire zereht'ís t'ájá sí ghá yeret'ís yuní 2011 kú Diavík harelyú zanaré yalní ts'í zéné t'ájá sí gháré yíla zat'e.

Ch'adíe chu zasíe Dáníye chu

Ƴeyí Environmental Agreement (Ní ghá zelk'óretá) begharé, Diavík ní hál ní xa Wildlife Monitoring Program (Chadíe chu zasíe dáníye chu Badi beghálada) ghálaná zat'e, Ƴeyí sí Wildlife Monitoring and Management Plan (WMM?P) (Ts'edáy Sehút'e Gháladalada) beyatie gháré yelá zat'e. Ƴedirí la t'a t'á búnídhër ní sí bet'á t'ohót'í ch'adíe náday-u, Ƴiyës lát'í-u, zasíe, ch'adíe-u Ƴeyër tsamba k'é náre náde t'arát'e sí ghá. Ƴeyí Environmental Assessment (Ní t'at'e xa bek'óneta) gháré t'at'e xa hunídhën ní sí hájá. Yuní 2011 t'ájá ní sí ghá dü já beghá yatí thela.

- 2011 ghaye belá núdhër-u, ní 9.71 ní dechën (km²)záílyá chadíe náday ní sí hubeghá húle.
- Ƴeyí chadíe náday beghá ní húle k'ízí, 2011 ghayé zett'hën naday beghá ní húle zájá sí lá zat'eíle, hát'e húlí, Ƴeyër tsamba k'é gá ts'én nıdhíle náye zasíe layılde dólzá – Ƴlághe dzeret'áy k'é gá-u, Ƴlághe Ƴeyër zél A154 gá-u tth'í Ƴlághe A21 náre;
- Ƴett'hën dzeret'áy ts'í net'í ní sí 2011 kú ghayé beghádaríle, t'axalá sí Diavík Ƴeyí dzeret'áy ts'í zasíe net'í sí nayehenehı́ xa Ƴeyí háyurı́la ts'í dëne yeghá nádánidé dzeret'áy yudágh nareltth'élzaze bekadoréjáı́le t'á. Yuní húdhër gháré kose náre bet'á redı́ xázá (kose náre ch'adíe beba zesázı́t'e t'á) tsamba k'é náre t'anıl't'e xa hunídhën ní sí dezánı́t'e zájá. Ƴeyí zasíe dánét'í benonıtthır hat'e 2012 ghayé dé.
- Dzeret'áy t'á zett'hën net'í ní sí 2010 kú burı́ı́a xalya, t'at'ályá sí Diavík t'a xa xat'ú ts'én yeghálada sí xa yenanehı́ t'á, xél tth'í hayurı́la dála nádáts'ede Ƴeyí dzeret'áy tthída nareltth'él bunídla t'á. Ƴatthe ts'í zereht'ís heła gháré xa dé Ƴeyër tsamba k'é zanaré hurechuı́le, t'at'e xa hunídhën ní sí Ƴázı́ zájá.
- Ƴett'hën ní k'e t'arát'ı́ sí xa net'ı́-u/bek'ónét'á (ní-ts'ı́) Ƴeyí t'anıl't'e xályá sí 104 k'énedhé xályá yuní 2011 kú, Ƴeyër tsamba k'é xázá ts'ı́ t'anı́ltha ts'én net'ı́ sí 2 dechën ts'ı́ 30 dechën ts'én. Ƴereht'ís thela gháré zett'hën zetsı́ dı́ dé t'at'u ts'én ts'éreht'la sí bıt'as t'ahı́ı́t'e sí gháré zat'ı́.

ʔetthën t'a ʔetsi xél dát'í sí nárádílíle-u shélyi ghá náde ʔeyër tsamba k'e ch'azí ʔat'í ʔájá dé.

- Tɬu chu tthe ʔek'edalye chu 59 k'énédhé net'í. 2011 kú taghé k'énédhé Diavik ʔeghádálada náré ʔetthën (ts'érelt'ay) t'á yuʔéné ʔat'í xa nánét'ën ʔilé. 2011 xayt'ás Bek'et'ánchay Nátl'ir Za 7 núlta ts'í 27 núlta ts'én ʔeyër nu k'é sayís ts'én xáhʔa 200 ʔetthën níłla náídé.
- ʔeyi ní t'anílt'e ch'adíe náday húle sí k'ízí, t'ok'e dléze náday sí ʔazaze yudághe ʔajá xát'e húlí, t'aníłte xa hundhën ní sí bek'ází.
- Sas sí ɭegháldhëríle-u, ʔesájáíle-u tth'í ʔeyíle ts'én ʔedíldíle kú gháy. ʔeyi nu k'e tth'ís ts'én xáʔa 56 k'énédhé sas húlí ghá háhadí 2011 kú, ʔłághe sas, sasyeʔaze xél halá kozí náré ʔat'í.
- DDMI dléze ghá náłtsí badí xa ní beghádaʔíle ʔeyër Diavik ch'adíe k'onenta k'éyághe ʔat'í sí 2011 k'ú xát'u dé ʔeghá náłtsí sí ʔedí ts'én ʔeghálahena xa yehenełł xat'e 2012 k'ú dé'
- 2010 kú ʔeyër tth'ís nu k'e naghai 4 k'énédhé het'í. ʔeyi tsamba k'é xáʔa t'á naghai ɭegháídé ʔíle húlíle 2011 kú.
- 2011 kú Diavik yath k'e nághai ke káháneta háyurła yets'ehíní t'á; 27 bek'é k'é het'í. Diavik dënexél ʔat'í ʔeyi nághai bets'í DNA net'í beghálada sí, ʔeyi GNWT chu BHP-Billiton chu yełł. 2011 ghayé Diavik ʔanáré harelyú t'á 18 náde(9 deyëth-u, 9 dets'í). Yunedhé DNA net'í xa dé 2014 dé kú, GNWT t'ahejá lazí gháré.
- ʔasíe dzéret'ay shélyi xa ʔasíe ɭáíde xát'í bet'óghe ní hórelyá nádáridha sí het'í ʔíle 2011 kú. 2011 kú tsamba k'é beghálada t'á ɭáldhër ʔúłíle.
- T'o bek'óneta dáhódhër gháré ʔeyi tsamba k'é heʔa t'á ʔeyi det'an lát'í ʔasí ɭálde ʔeyër ʔasíe k'oneta k'éyághe xa dé t'ok'é náday bet'á bebá hunílaíle xél tth'í, ʔeyër tsamba k'é beghádálada t'á tthatsël bet'óghe t'ok'e dáthela bet'á hunílaíle. Xaye t'ált'u ʔasíe t'óghe ʔedí ts'én bet'óghe níle sí ʔeyër tsambe k'é gá beghálada sí bet'á ʔíle. Yunedhé xát'u bek'óneta xa dé 2015 kú dé.

- Bexél tth'í t'at'ú ʔasíe hadí xa programs ghádálahenə t'at'é sí xat'ée, tth'í beghadhén Diavik ʔeyíle dène xél ʔasíe ʔak'ék'ère nanet'í déltthí ʔeyí tsamba k'é xa ch'adíe badí xa program t'at'u begháladanə sí dú sóghán'ít'e gháye háyíla. 2011 xayé t'at'ú beghálada ní sí xat'ée ʔeyí kú ʔasíe nedhé chú háyuríla tsí chu dène xél náyatí xa workshop heltsí-u harelyú t'ə dēnexél deltth'í xa bek'ayaítí sí ʔeyí taghe tsamba k'é (Diavik, EKATI tth'í Snap Lake) dáthela-u, t'ə Monitoring Agencies dǎli (EMAB, IEMA tth'í SLEMA), ʔedizí ts'í Government (GNWT) bets'í departments ʔech'ēr K'élní (ENR), Environment of Canada-u, Wekeezhú Renewable Resrouces Board (WRRB) tth'í háyuríla dáhála sí tth'í. ʔeyí yatí nehé ghə ʔəla nets'ídel dǎílé ní sí harelyú setth'í beghə ʔereht'ís xáh ʔeyí t'a't'ú ʔasíe hadí beghádálada sí ghə ʔǎzí t'at'ú sughá ts'én beghálada ghə yatí nílya sí ghə.

Yuní ghayé dóhodhër k'ízí 2011 kú reyër tsamba k'é xáṛá náré thaye dzéréth'ay t'at'e xa Environment department t'at'u yaṣu sí xat'éé ṛat'e. Xaye t'anéftu ḥuk'é dé yath net'ḷ. ʔedırı beghálada sí bets'í yath hílchu sí nalxí-u betúé t'at'e sí xa net'ḷ-u tth'ḷ thay dzéréth'áy beta ḥuḷḷ dé xa net'ḷ. Beta thay húlí dé reyḷ tth'ḷ hílchu begháré tsamba k'é náré t'anílt'é-u tth'ḷ t'at'u dzéréth'áy xa net'ḷ.

Yuní (1998) reyí Environmental Effects Report zerehtł'ís xálí gháré xa dé reyí
thay nátl'ír harelyú zela xa dé búldzáy zat'e yuní 2001 ts'í (2011 chu) kú reyí

redezanílt'e rájá. ʔeyí t'at'e xa hunídhën t'a gháré ʔat'edí sí ʔeyí dëne náré níłtsı ts'ejí t'at'e xa snı sí yatı hálı húlı yunı 2006 ts'ı 2008 ts'ën ní hadı beghálada sí kú 2005 hálya húltáıle yegháré ʔeghádálada hunídhër ts'ıʔéné redezanílt'e rájá, ʔeyër kú dé dezanílt'e ʔat'e búldzáy gháré. Yunı ghayé dóhódhër gháré xa dé, 2011 kú thay náłt'ır ʔedek'ázı ʔájá ʔat'e xél tth'ı tsamba k'é ts'ën níthá dé dek'ázı ʔat'e, kút'a xáne xa hunídhën ʔut'e nı.

T'at'e xa bunídhën ní sí xat'e ʔeyı tsamba k'é gá thay dzérétth'ay dé sezanílt'e-u bech'ázı dé dek'ázı. T'anílt'e thay náłt'ır sí ʔeyër ʔanaré ʔeghádálada t'á'u tth'ı níłts'ı t'at'u ts'ën ts'érełts'ı chu t'át'e.

Yath túé beyé ʔasíe hulı net'ı (yath túé beyé ʔasíe hulı buldzáy) sí ʔesóhórılya k'éyaghe ts'ı ʔats'edı ʔat'e sí (beyé ʔasíe t'anílt'e tu yé hulı sí ʔeyı tu xa ʔerehtł'ıs gháré xa dé t'anílt'e xa snı sí k'ázı ts'ën yek'éłnı xáʔa) ʔeyı búldzáy hıle 2010 kú sí ʔeyı Water License gháré xa dé harelyı dek'ázı ʔasíe beta hulı, xat'e hulı ʔıłaghe ʔasíe net'ı beyé zınc beta hulı ʔeyër SS2-2 dazıttłıs ts'ën haza A154 ʔél ts'ı.

Dzıné huréya za dé Diavık tılu k'e tu yek'eʔalı sí ʔeyı tsamba k'e ʔeghádálada ts'ıʔéné beta thay dzérétth'ay dek'ázı xa. Yunı 2009 ʔedırı bet'á tthe náłts'ës k'enuʔıʔa begha nõhót'e; ʔeyı bet'á tthe náłt'ës bedárıla ʔat'e xél tth'ı thay dzérétth'ay badı xa hulı xat'u dé tthe náłdëth t'á thay náłt'ır dek'ázı xa.

Yunı 2008 kú, Diavık t'a níłtsı ʔasíe nedhé k'ádórelʔa dalı xél ʔeghálana hunídhër t'at'u bek'ızı níłtsı beghálada xa. ʔeyı ʔasíe k'ızı ʔeghálada yet'á het'ı sí yegháré bet'as t'ohót'e sí-u, thay dzérétth'ay ghá-u, t'anílt'é łës t'áhat'ı-u, t'at'ı bet'á ʔasíe ghálada t'áhat'ı bets'ı ʔéné łës łéré nelé sí ʔeyër tsamba k'e t'a ʔeyı hat'ı hanı náłtsı ʔat'e. ʔeyër tsamba k'é núhút'a tthe. Diavık yenerení ʔeyı Environmental Assessment hunídhër ts'ı ʔasíe bet'óréʔa nedhé ʔedı ʔájá (t'a ts'edı, la beghádálada, t'anílt'e xa hunídhën nı sí ʔánílt'e) ʔeyı t'á bek'ızı ʔeghálada xa begha nõhót'e 2011 kú ʔeyı níłtsı t'at'ú beghálada nanet'ı xa. ʔeyı Environmental Air Quality Monitoring Program (Nıłts'ı Badı Xél ʔeghálada) bets'ı ʔerehtł'ıs ʔeyı GNWT-ENR, Environmental Canada chu tth'ı EMAB bet'ıłchuth xat'e 2012 k'ú dé.

Xaye t'anelt'u, Diavık hubet'á łës lëre t'á hunídhıl t'anílt'e herenı sí hulta-u t'a beghárá xáʔa sí hárálnı délth'ı regulators húlye; 2011 chu 2010 chu xa dé t'anílt'e łér herenı sí ʔełt'e ʔat'e harelyı hultá xa dé 199,000 tonnes of CO2o hıłdth ʔat'e. ʔeyı łës lër hunídhıl sí harelyı ts'ıʔéné ʔat'e. ʔeyër Diavık, łës

délk'ën sí (ʔasíe bet'á ʔeghálada xa-u, ʔídjí kon hełtsı huneldhél xa) ʔeyı t'a bet'á lës lëre hunídhıl ʔat'e.

Tehyághe T'ane sí (Tu Nedhé Túé T'at'e & Łu t'arat'e)

Diavík yuní 2011, ʔałú tehyághe badı Aquatic Effects Monitoring Program (AEMP) ghálana. ʔedırı dı 9 ghayé tehyághe t'at'e badı sí ʔeyı Diavík bets'ı tu xa ʔerehtł'ís xa ʔedínáltı ʔat'e.

2011 dé dı 4 ghayé ʔeyı AEMP ʔedı ʔałya sí, dı taghe ts'én ʔelk'éch'a tu net'ı xa hılchu xat'e (ʔegës Za, Dzınedháze Za, tth'ı Łudalye Za) xél tth'ı ʔału tèn theʔaı halye xa Łıtt'hél Za ts'ı Degai Marı Za ts'én. Taghe xaye xa ʔeyı beghádálada nanet'ı sí hályá 2011 kú tth'ı t'a húnıdhır hureldzáy sí ʔeyı Traditionl Ecological Knowledge monitoring program húlye łue chu tu chu xa ʔeyı húnıdhër ʔat'e 2011 ts'ı 2012 ts'én.

ʔeyı AEMP hanı ʔeghárıla gháre ʔeyër Lac de Gras tsamba k'e ghálada ts'ıʔéné ʔaté t'ajá sí yek'órelıya. ʔedıʔáze ʔájá ʔeyı tu yé ʔasíe dólı-u, tehtł'aghe ʔasíe dáthedzáy-u, tth'ı teguáze (guáze tehtł'ághe nárádé) búldzáy gháre hılé, t'a t'sı ʔéné ʔat'e sí ʔasíe bet'achúréʔa t'a t'e. ʔedırı ʔedı núhúdhır sí ʔeyër tsamba k'é ga bek'órijaile (háıurıʔa ʔak'onélta k'eyághe) bech'azı dé dek'ázı (ʔak'onélta háıurıʔa k'eyághe chazı deʔanıłtha). Diavík ʔeyër Lac de Gras náré tehtł'aghe łueʔaze net'ı xa yılchu t'a xa yeıyı sí yunı hat'ú bek'öneta ní gháre ʔeyı mercury hılı sí yazaze yudaghe ʔájá nı ʔeyër tsambe k'é ga ʔeyı nat'ı xa. 2011 kú badı gháre ʔeyı mercury łueʔaze ta hıłı sí tsamba k'é gá xa dé yazaze yudághe ʔájá 1996 ts'ı. Deʔanıłt'e ʔája ʔeyër bánéłt'u Lac de Gras chu Lac du Sauvage chu (tsámba k'é dests'éłáze yeghı nédát'helı), ʔeyı t'a tsámba k'é ʔeghádálada t'a ʔat'eıl.

Diavík ʔerehtł'ís dıłt'ís

2011 k'égháre chu 2012 chu, ku Diavík ʔerehtł'ís dáhálı chu t'at'u ʔeghálahenı xa sí-u dëneba nédáyela, ʔeyı t'a lát'ı sí Wekèezhıı Land and Water Board, Department of Fisheries and Oceans, Indian and Northern Affairs Canada and Environment and Natural Resources. ʔedıre ʔerehtł'tís xáhı harelyı ʔerehtł'ís dáhálı ʔeghárélyat'a detł'ís ʔat'e.

ʔeghádálada T'anáhadhër Xáʔa

2011 kú, Diavík 6.7 million ʔáíldath diamond híłchú, kú yuní 2010 xa dé 6.5 million ʔáíldath híłchu ʔeyëre ts'í 2009 kú 5.6 million ʔáíldath (yuní sí tsamba k'é tháíle ts'én bedáířta híłé t'a). Harelyú xa dé yunedhé hadhër dé Diavík k'áʔú ts'én beghálada xa hunıdhën.

Yuní 2011 kú, náts'ede ts'én xaye ʔált'ú bet'á ʔasíe ghálada-u, ʔasíe bedı náltı sí-u tth'ı lës xat'ı ʔasíe ʔelénalya xay ʔlú k'e ʔeyı sí ʔelëts'ëłts'u Za 28 ts'ı Łıtt'hël Za 1 núlta ts'én.

Yuyághé ts'én (ní yághe háyuřla dáıřa)) xale kú xayé gháre xat'u dé dëne ní yághe ʔeghádálana xa ʔayër A154 chú, A418 kimberlite pipe sí gha. Diavík ʔaı ʔeyër ní yághe A154 chú, A418, tth'ı ʔasíe k'oneta-u, kimberlite pipe beghálada xa nulı, ʔeyı A21 dı xa beghádaíle.

2011 kú dé Diavík ʔadı-u tsamba k'é xáʔa sí nıłts'ı t'á satsán hetł'él xat'ı núhıřa yúnıldhır xa hénı. ʔeyı beghálada xa sí t'anóriłtsé xa dé 2.3 megawatts xá nóriłtsé xat'e ʔeyı nıłts'ı t'á satsán hetł'él sí, xaye 2012/13 dé bet'áhat'ı xat'e. Diavík k'anı híłdı harelyú néné xa dé ʔedenı t'atthe 40C yé hegóth xa, bet'á lës k'áʔu bedınáłtı-u tth'ı k'áʔú lëre xat'e.

Harelyú T'á ʔasíe Gha Nánahadé

Environmental Monitoring Advisory Board ʔeyı Diavík ku xayé t'ayehı sí gha yeaı ʔela nílya sí (Diavík yebazı t'adı sí tth'ı) ʔedıre ʔerehtł'ıs belaghe xél thela ʔat'e.

Harelyú háyuřla dëne ta nahedıl ʔl é sí through ʔedıre ʔerehtł'ıs Section 6.2 yé thela ʔat'e. Dëne xél náyatı xa sehúlyá t'á bedáregháre ʔalyá sí ʔedıı Thcho Government-u, Kıtıkmeot Inuit Association (KIA)-u, Yellowknives Dëne First Nation (YKDFN) –u tth'ı Łútsël K'é Dëne First Nation (LDFN) tth'ı North Slave Metis Alliance (NSMA). ʔeyër Diavík begha náıts'ıdıl sí yuřéné ts'ı dëne ʔedenı xaré yeghá ʔesádáhedıle ʔeyı ní xáʔa begha náyatı sí gha yuní 2011 kú.

ʔasíe Gódhé Dága

2009 kú, Diavík t'at'ú ʔasíe godhé dága t'at'í-u yet'a tsamba k'é ʔeghálana xa ʔek'ónelta. ʔeyí nłts'í t'á satsán het'él ʔaxa yet'at'í xa húnídhír xat'e yunedhé dé tth'í Diavík dıghı nłts'ı t'á satsán het'él dathele xat'e 2012 kú dé. Háyurıla yets'eʔnı t'a natthé tthaydén sáse k'é net'ı yunı Łue dáltı Za 2010 ku, tok'e dalye xa sughá nıdé dé xa. 2011 kú ʔeyı nłts'ı t'á satsán ʔet'él háyurıla ts'ı t'ą begháre xáʔa sı bexél nádáyatı ʔılé ʔat'e. ʔedızı néne ʔedırı bek'ızı xát'ı ʔasíe ʔılé ʔılı ʔat'eıle tth'ı bet'á hat'ı xadé húrenıle xat'e. Dat'ı ʔasíe godhé t'á t'ą ʔasíe nedhé ghádálada sı ʔaxa-u háyurıla dáhála sı tth'ı yet'á het'ı xa dúelé xat'u dé ʔedızı haza k'ázı łes t'áhat'ı xat'e

2011 kú Diavík bet'a ʔasíe k'erelk'a tsók'én nıt'a húnídhër. ʔeyı ʔate t'at'u ʔalye xa snı sı begha ʔenaʔıt'e, t'oke nıt'a xa sehúlya-u, kué nıt'a-u tth'ı tsók'én ʔela nılya. ʔedırı la t'at'ú beghálada xa sı xat'éé xa, bet'á xat'ı xa dúéle nıde hunıdhén ʔat'e 2012 kú dé.

Diavík ʔahı t'at'ú yeghálada lazı xa ʔeyı A21 kimberlite ʔeyër Lac de Gras ní yaghe hılı sı nełı ʔat'e.

Nı Badı Ghálada T'ane Xa Hunıdhén Nı Sı

ʔeyı ʔereht'ıs Appendix B húlye bexél ʔeyıle ʔereht'ıs Rolling Effects Summary húlye tth'ı bexél hełchuth ʔat'e. ʔedırı ʔereht'ıs yé t'a gha náyatı sı ʔeyı ní badı ghálada net'ı gháre t'ane xa hunıdhén nı sı hája nı dé xa net'ı xat'e, ʔeyı t'ats'edı sı ch'adı-u, háúneshé-u, bıtas t'ázıt'e-u, łué-u tth'ı tu. T'a net'ı sı t'atthe húnídhër-u t'ane xa hunıdhén nı sı chu dı 2011 chu yunı ghayé dáhúdhër chu t'ajá sı xa net'ı xat'e.

ʔate hát'e xa dé, ʔeyı ní badı beghálada gháre búret'ı ʔeyı Diavík háʔa sı ts'ıʔéné t'anılt'e xa hunıdhén nı sı k'ázı ʔat'e ʔeyı Environmental Assessment begháre xa dé, kú xat'e hılı ʔetthén xa dé thay dzéretth'ay yudaghe ʔája tth'ı tsamba ʔeghádálada ʔedeʔanılt'a ʔája ʔetthén xa.

ʔek'óhót'e

Yunı 2011, Diavík ní chu tu chu xa ʔeret'ıs hutón sı yegháre hálʔa. Dıghı ts'én ʔek'éch'a ʔeghálada ts'ıʔéné tháıle hılı tu hárılı ʔılé. ʔıla bets'ı háılı tu yé náıdı shıne ammonia, zinc, nickel tth'ı pH (1645-24 t'ók'e tanıdhıle hat'ás sı), ʔeyıle ʔılaghe ts'én beyé zinc hılı (2008-SEEP-01, pond 2). ʔeyı taghe ts'én háılı sı tháıle ts'én Lac de Gras ts'én nılı k'e.

Yuní 2011 kú, Indian and Northern Affairs Canada (INAC) ts'ı Inspector húlye 6 k'énedhé Diavik ts'én nátheya. ʔeyı Inspector bets'ı ʔerehtł'is t'ajá sí ghá ʔedıı ʔerehtł'is xél thela ʔat'e ʔeyı Summary of Compliance húlye ʔat'e.

Ní Badı Ghálada

Yuní 2010 kú Diavik ʔelk'éch'a nı hadı ghá ʔerehtł'is dáhalı ʔerehtł'is xél thela sí Appendix A beyé Table A1 húlye, xél tth'ı t'anáhadhër-u, t'ajá sí ghá ʔerehtł'is ʔat'e. ʔedıre ʔerehtł'is xél ʔate beghá hanı thela sı:

- Thay dzérétth'ay chu bıt'as t'óhót'e badı;
- Tu t'at'e chu t'anílt'e chu;
- Tehyaghe t'óhót'e;
- Ch'adíe chu t'áhót'ı náday (ʔasíe dáníshe);
- Łue; chu
- ʔerehtł'is Kųé Nedhé (University) naye ʔasíe k'adónetą ghá xáʔą ʔat'e.

List of Acronyms (Abbreviations found in the report)

AEMP	Aquatic Effects Monitoring Program Tehyághe T'aʔú't'e xa Badı Ghálada
ARD	Acid Rock Drainage Ní yághe tthé tsı háılı/háduth
ALDP	K'aldé Nedhé Dálı xa Sekui Honehtën
CCME	Canadian Council of Minister of the Environment Ní ghą K'alldhër Nedhé xa Canadian Council Délth'tı
DIAND	Department of Indian Affairs and Northern Development Tsąmba Nálye xa K'aldé
DDMI	Diavik Diamond Mines Inc. Diavik bets'ı Tsąmba K'é
EA	Environmental Agreement or Environmental Assessment Ní Ghą ʔek'óretą to Ní Beghálada The ʔate Net'ı
EAAR	Environmental Monitoring Agreement Annual Report Ní Badı xa ʔek'óretą ghą Xaye T'anelt'ú xa ʔerehtł'ıs
EMAB	Environmental Monitoring Advisory Board Ní Badı xa Advisory Board k'é Délth'tı
EMS	Environmental Management System Ní T'at'u Ts'én Beghálada
ENR	Environmental and Natural Resources Ní chú Harelyú ʔasíe Bek'e Dana chú (Land and Everything that is alive on it)
GNWT	NWT xa ʔelegéth K'aldé Délth'tı
GPR	Ground Penetrating Radar Satsán T'a Ní Bek'óneta

HU	Habitat Unit T'ók'e ?asié Náday Húldzay
INAC	Same as DIAND
ISO	International Standards Organization Harelyú Néné ts'én Begháré ?eghálada xa ?erehtl'ís Dágha xa Há?a
ICRP	Interim Closure and Reclamation Plan Thááíle Ts'én Bedáret̓ chu Senalye chu xa Sehút'e
MVLWB	Mackenzie Valley Land and Water Board Mackenzie Valley xa Ní chu Tu chu xa Délth'í
NIWTP	North Inlet Water Treatment Plant Dás Ts'én Xa?a Destselazé Túé Sureldhën Kúé Xá?a
NTU	Nephelometric Turbidity Units (measurement of water turbidity) T'at'ú dzatúé huldzáy
OLDSSF	On-Land Dredge Sediment Storage Facility Ní-k'e tu hat'és hállí húldzay xa bek'áhaní kúé
OPCP	Operational Phase Contingency Plan Haxá-ú ?asáhújá dé xa Ts'eday sehút'e ghálahenā
PK	Processed Kimberlite Diamond tthe ts'í hílchu begháhadhër tthe
PKC	Processed Kimberlite Containment Diamond the ts'í hílchu begháhadhër tthe bek'áhaní k'é
PVP	Permanent Vegetation Plot T'ats'én xa ní huneshe núhút'a
QA/QC	Quality Assurance/Quality Control T'at'e sí ghá yatí nít'a/T'at'e sí k'éhelní
SNP	Surveillance Network Program T'at'u harelyú ?asié Hadí Ghálada

SOP	Standard Operating Procedure T'at'ú Begháré ?eghálada xa
TSS	Total Suspended Solids T'anílt'e tu yé ?asié dálzul
USEPA	United States Environmental Protection Agency Bescho küé ts'í ní Halnı xa ?eghádálaheną
WHMIS	Workplace Hazardous Materials Information System ?eghálada k'é Xá?ą ?asié bech'ónejër thela nıs ?eghálada begħą hanı hełtsı ghálaheną
WLWB	Wek'eèzhù Land and Water Board Wek'eèzhù xa Nı chu Tu chu xa Délthh'ı
WTA	Waste Transfer Area ?asié ?ónedı ?edı?ye k'é xá?ą
ZOI	Zone of Influence T'ok'e k'éyaghe nadhër t'á xá?ą

Definitions

English (That'ine Yati)	Dëne Sułné Yatı	Back Translation
Abundance	ʔasíe bedı́náltı́ ʔíle	plentiful
Adaptive Management	K'etł'á ts'én ʔasíe k'oneta ʔasíe ʔedı́ nalye dé xa.	Always things are studies from changing.
Benthic Invertebrates	Tehguʔaze (betth'éné hı́lile)	Underwater little bugs (no bones)
Deposition Rate	ʔasíe t'anárlı́tla-u nátl'ır t'a ʔelétł'ır	Things the rate they fall to accumulate
Distribution	ʔasíe harelyu ts'én ʔat'ı́	Things that everywhere to is spread
Effluent	T'u bet'áhat'ı́	Water that was used
Enrichment	Bet'á ʔahxé	????
Environmental Assessment	Nı́ beghálada tthe net'ı́	Before land is worked on it is looked at
Eutrophication	Tehdláre dezánanelye	Water vegetation re-grows itself
Habitat Compensation	T'ok'e ʔasíe náday bega húle t'á bek'enaret'á	Where things live they loss it is replaced
High-level Effects	Ts'éthıle-u ʔedı́ ʔája	Much changes happen
Interim Closure & Reclamation Plan	Thááʔıle ts'én Bedárétı́ & Senahúlye Beghalada	Until a short time Close & To re-fix work will be done
Low-level Effects	ʔedı́ nı́hı́dhır bek'órı́jaıle.	Changes is unnoticeable
Mitigation Measures	T'at'ú t'á ʔek'azı́ tsédhır ch'a	The way to lessen from damage
Moderate Effects	ʔedı́ nídhır bek'órı́jaıle	Changes are noticeable
Monitoring	ʔasíe badı́	Something is being looked after
Parameter	Bet'á tu chu ní dzén t'at'e xa net'ı́	It is used to check the water and soil

Plume	ʔasie tsédhır ǽr buret'ı Water: dzá nighës (mixing) Air: hunılta (pollution above air) Soil: ní ts'ıdhër (land is damage)	Fume/smoke is visible
Prediction	Natthe t'at'e xa hunıdhën	In the future how it was thought it was going to be
Progressive Reclamation	Tsamba K'é ɹaıı ɹeghádálada-u senalye húnıdhër.	While the mine is going they starting to fix it up.
Research	ʔasie K'óneta	Something is being studied.
Risk Assessment	ʔasie tsıdhër dé t'at'e lası xa net'ı	When damage occurs it is looked at to see how it is.
Sediment Chemistry	Teht'aghe tthayé	Bottom of water sand
Seepage	ʔasie háılı	Seepage
Trophic Status	Harelyú bet'á ʔasie dáleına húldzáy	Everything is alive by it is measured.
Water Quality	Tu t'at'e sı	The way the water is
Zone of Influence(ZOI)	Nı hayurııa k'eyaghe ch'adıe yets'ën to yech'ase hat'ı-u to	Land area where animals go to or go from when it happens

Excerpts from the Environmental Agreement

12.1 ANNUAL REPORT

- a) DDMI shall prepare and submit an annual report (the “Annual Report”) to the Parties, the Government of Nunavut, and the Advisory Board on March 31*, (or on such other date as prescribed by the Minister from time to time), for each calendar year during the term of this Agreement, commencing March 31, 2001.

* - effective in 2003, the submission date was revised to annually on June 30

- b) Each Annual Report shall include the results of Environmental Monitoring Programs, and a rolling summary and analysis of environmental effects data over the life of the Project to illustrate any trends. The actual performance of the Project shall be compared to the results predicted in the environmental assessment and the CSR and an evaluation provided as to how DDMI's adaptive environmental management has performed to the date of each Annual Report.
- c) Each Annual Report shall include, but not be limited to, the following:
- i. a comprehensive summary of all supporting information, data and results from the Environmental Monitoring Programs and all studies and research;
 - ii. a comprehensive summary of all compliance reports required by the Regulatory Instruments;
 - iii. a comprehensive summary of operational activities during the preceding year;
 - iv. actions taken or planned to address effects or compliance problems which are set out in the Annual Report;
 - v. a comprehensive summary of operational activities for the next year;
 - vi. lists and abstracts of all Environmental Plans and Programs;
 - vii. verification of accuracy of environmental assessments;
 - viii. determination of effectiveness of mitigative measures;
 - ix. a comprehensive summary of all adaptive management measures taken;
 - x. a comprehensive summary of public concerns and responses to public concerns;
 - xi. a comprehensive summary of the new technologies investigated;
 - xii. the Minister's comments, including any Minister's Report, on the previous Annual Report; and
 - xiii. a plain English executive summary and translations into Dogrib, Chipewyan, and Innuinaqtun using appropriate media.
- d) In order to prepare each Annual Report and with a view to both ensuring that an opportunity is provided for early disclosure and discussion of problems and that each

Annual Report meets with the requirements of this Agreement, DDMI shall Consult with the Minister and the Advisory Board as DDMI compiles the information and data to be included in such Annual Report.

- e) Within forty-five (45) days of the receipt of the Annual Report, any Party or the Advisory Board may advise the Minister whether such Annual Report is satisfactory or unsatisfactory.
- f) Within ninety (90) days of the receipt by the Minister of the Annual Report, the Minister shall advise DDMI whether such Annual Report is satisfactory or whether the Minister has determined that such Annual Report is deficient. In the event that the Minister has determined the Annual Report to be deficient, the Minister shall provide DDMI with a Minister's Report.
- g) In relation to matters substantially within the jurisdiction of the GNWT, the Minister shall provide DDMI with a Minister's Report pursuant to Article 12.1(f) when the Minister receives advice from the GNWT that the Annual Report is unsatisfactory and the GNWT's advice shall be included in the Minister's Report.
- h) Within sixty (60) days of the receipt by DDMI of a Minister's Report, DDMI shall reply to the Minister's Report and provide the Minister with a revised Annual Report or an addendum which addresses satisfactorily the deficiencies described in the Minister's Report.
- i) The Minister may provide DDMI with an extension of time where DDMI is bona fide delayed in completing an Annual Report or providing a reply to a Minister's Report.

14.1 (e) DDMI in consultation with the Advisory Board shall make each Annual report available to the public and shall arrange for public meetings to review and discuss each Annual Report.

Section 12 and 14.1(e) of the Environmental Agreement (Plain Language Provided by EMAB)

12.1 Annual Report

- a) Diavik will create an annual report and pass it on to the Parties, the Government of Nunavut, and EMAB on March 31^{**}. If the Minister of AANDC OKs it, the date can be changed. The annual report has to come out each year of this agreement, starting March 31, 2001.

^{**} - effective in 2003, the submission date was revised to annually on June 30.

- b) Each Annual Report will include:

- The results of Environmental Monitoring Programs;
- A summary that adds in data of each year and an analysis of environmental effects data over the life of the Project - to show patterns over the years;
- How the Project is actually affecting the environment will be compared to the results predicted in the Environmental Assessment and the Comprehensive Study Report; and
- A review of how Diavik's adaptive environmental management has been working so far.

- c) Each Annual Report will also include:

- A full summary of all supporting information, data and results from the Environmental Monitoring Programs, plus all studies and research related to these;
- A full summary of all reports on how Diavik has followed all rules and regulations in the Regulatory Instruments;
- A full summary of mining activities during the year up to the annual report;
- The ways Diavik is fixing any environmental effects or problems following rules and regulations;
- A full summary of mining activities for the next year;
- Lists and summaries of all Environmental Plans and Programs;
- A check that environmental assessments are correct;
- A report on how well steps to lessen effects are working;
- A full summary of all adaptive management steps taken;
- A full summary of public concerns and responses to public concerns;

- A full summary of the new technologies Diavik has looked into;
 - The Minister's comments on the Annual Report from the year before, including any Minister's Report; and
 - A plain English executive summary and translations into Dogrib, Chipewyan, and Innuinaqtun.
- d) Diavik will consult with the Minister and EMAB as Diavik puts together the information and data to be included in the Annual Report. This is so that there is the chance to find out and discuss problems as early as possible. This will also make sure that each Annual Report does what the Environmental Agreement requires.
- e) Any Party or EMAB may let the Minister know if the annual report is satisfactory or not. They have forty-five (45) days after receiving the Annual Report to do this.
- f) The Minister of AANDC has 90 days after receiving the report to let Diavik know if it is satisfactory or not. If the Minister decides that the report needs to be fixed, the Minister will give Diavik a Minister's Report.
- g) For the parts that involve the GNWT, the GNWT will let the AANDC Minister know if they think the report needs to be fixed. The Minister will include that information in his Minister's Report.
- h) Diavik has 60 days to answer to the Minister's report, and revise the Annual Report or add to the parts that need fixing.
- i) The Minister can give Diavik more time for the Annual Report or to fix the Annual Report if there's a good reason.

14.1 (e) Diavik should consult with EMAB, make the report available to the public, and then arrange public meetings to review and discuss each Annual Report.

Introduction

Diavik and the Environmental Agreement

The Diavik Diamond Mine is an unincorporated joint venture between Diavik Diamond Mines Inc. (60%) and Harry Winston Diamond Limited Partnership (40%). Both are Canadian companies with headquarters in Yellowknife, Northwest Territories, Canada. Diavik Diamond Mines Inc. is a wholly-owned subsidiary of Rio Tinto plc of London, England and Harry Winston Diamond Limited Partnership is wholly owned by Harry Winston Diamond Corporation of Toronto, Canada. Diavik Diamond Mines Inc. (DDMI) manages the operation of the mine.

The Diavik Diamond Mine underwent an Environmental Assessment that started in 1998 through the Canadian Environmental Assessment Agency. The mine has been operating since 2003, and protecting the environment around the mine continues to be important, along with health & safety and sustainable development. Back before the mine began operating, in March of 2000, the Environmental Agreement was signed by several Parties. This agreement was written and agreed to with the intention of ensuring that Diavik minimizes the environmental impacts caused by mining for diamonds in the remote location of Lac de Gras, NWT.

The Agreement contains several clauses, called Articles, that outline the responsibilities of Diavik, Aboriginal governments, and the federal and territorial governments. The agreement outlines Diavik's environmental protection commitments, it talks about security requirements to make sure that Diavik reclaims or cleans up the area around the mine at the end, and it says that Diavik must be open and clear about plans and activities when dealing with the communities that are affected by the mine's operations.

The Environmental Monitoring Advisory Board (EMAB) was created as a result of the Environmental Agreement. EMAB is a board that is separate from Diavik and the other Parties that signed the Agreement. One representative from each of the parties that signed the Environmental Agreement sits on the Board. The purpose of the Board is to work with the communities near the mine site, and to give Diavik, governments and other parties input, feedback and advice on environmental matters. EMAB also watches and evaluates Diavik's and regulators performance as it relates to the environment - recommending changes when the Board feels it is appropriate.

The Environmental Agreement defines the 'Environment' as the components of the Earth, and includes:

- (a) Land, water and air, including all layers of the atmosphere;**
- (b) All organic and inorganic matter and living organisms; and**
- (c) The interacting natural systems that include those components.**

This report has, in summary form, all the sections required by the Environmental Agreement. Diavik provides community updates during the year, which cover topics such as monitoring programs and water license updates.

Regional Environment – Lac de Gras and East Island

Diavik is located on an island called East Island near the east end of Lac de Gras. Lac de Gras is a large lake that is approximately 300 kilometers northeast of Yellowknife in the Northwest Territories. The lake is roughly 60 kilometers long and drains into the Coppermine River all the way north to the Arctic Ocean. Diavik gets diamonds from kimberlite pipes (dark coloured rock) located in Lac de Gras, next to East Island. Two kimberlite pipes called A154 and A418 are currently being mined and a third kimberlite pipe called A21 has been considered for mining by Diavik, but is currently on hold.

Since Lac de Gras is located in such a northerly environment, the climate affects how well plants and animals (fish, bugs, and vegetation) grow in the lake. Everything tends to grow a little slower because of ice being on the lake for most of the year, less daylight, low natural concentrations of nutrients, and colder water. Despite these conditions, many fish such as lake trout, cisco, round whitefish, arctic grayling, burbot, longnose sucker and slimy sculpin make their home in the lake.

Although there are many mammal and bird species in the region, only a few species live on East Island all year round. These include wolverine, fox, arctic hare, arctic ground squirrel, red-backed vole, brown lemmings and rock ptarmigan. During spring and fall, some caribou from the Bathurst herd migrate through the area. This map shows the range of the herd and where Diavik is located.

Caribou sometimes cross the ice of Lac de Gras during their northern migration. Many bird species stop at the island during spring and fall migrations, and some species of waterfowl, shorebirds and songbirds nest on East Island during the summer. Grizzly bears, wolves and wolverines have large home ranges and also visit East Island occasionally.

In the region where Diavik is located, there isn't a large amount of snow or rain during the year and the climate is cool. Snow makes up the larger part of what does fall for precipitation. The table below shows the average monthly temperatures at the mine site during 2011.

Table 1: Average Monthly Temperature at Diavik in 2011

Month	Temperature (°C)
January	-28.8
February	-27.6
March	-24.5
April	-19.0
May	-1.1
June	7.4
July	15.2
August	12.0
September	5.9
October	-2.8
November	-18.9
December	-23.7

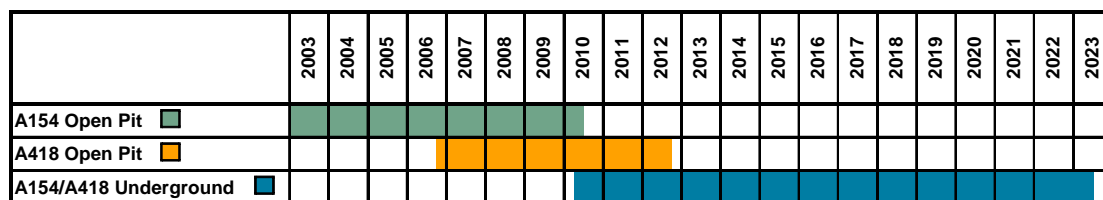
Mine Management

Environmental Management at the Mine

Diavik's Environmental Management System (EMS) is designed to meet the internationally-recognized ISO 14001:2004 standard. First certified in 2004, audits are done every year by an independent organization, to check Diavik's performance against the standard. The EMS and the ISO 14001:2004 standard are based on the idea of continual improvement, and this theme is the foundation for Diavik's environmental objectives, targets, plans, programs and procedures. Diavik has been successful at meeting the requirements of ISO since 2004.

Mine Planning

The figure below shows a timeline of Diavik's mine plan, which shows mining activities planned for the next several years.



Notes:

- A21 kimerlite feasibility is being assessed
- Mining schedule as of March 2012 - subject to change due to market conditions, further resource evaluation, continued mine planning, etc.

2011 Diavik Diamond Mine Satellite Photo



Environmental Plans and Programs and 2011 Submissions

This section contains an outline of each of the various plans and programs that Diavik follows, related to the environment. For each plan/program, an outline is provided explaining what the program is being done for and how it is completed. Many of these programs are the same from one year to the next. For each program, the documents that are submitted to regulators and distributed to the Parties of the EA are listed. Some of these documents were submitted and approved a few years ago, but they still applied to 2011 operations.

1. **Monitoring Programs**

Monitoring programs are designed to track changes to the environment as a project develops, and are usually linked to predictions from an Environmental Assessment. Monitoring programs required for Diavik are summarized within the water license or Environmental Agreement.

1.1 **Aquatic Effects (Lake Water Quality & Fish Health)**

Diavik conducts environmental monitoring programs under the terms and conditions of the Water Licence (W2007L2-0003) and the Fisheries Authorization issued by the Department of Fisheries and Oceans Canada (DFO). The Aquatic Effects Monitoring Program (AEMP) is the primary program specified in the Water Licence for monitoring the aquatic environment of Lac de Gras.

The AEMP is designed to measure short and long-term changes in Lac de Gras, check results against predictions, measure the performance of operations and determine the effectiveness of mitigation measures. Every year Diavik collects samples of lake water (chemistry/quality), sediment (chemistry/quality), benthic invertebrates (type and amount of bugs that live in the sediment on the bottom of the lake) and plankton (type and amount of tiny plants and animals that float in the water) from 37 locations in Lac de Gras during three periods: 1 during ice cover and three open water sampling events. Information is also gathered on fish health. All samples are analyzed for many different things at independent laboratories to see how the lake is changing compared to the time before the mine was here. Data from other monitoring programs are included in the AEMP, as specified by the water license (e.g. air quality (dust deposition), SNP). Some examples of Specific Effects Studies (SES) include: an evaluation of metals and explosives residues, dredging and dike construction effects (post-construction dike monitoring program), a plume delineation program to determine the area of the treated effluent in Lac de Gras and determining any toxicity issues associated with the treated effluent.

Aquatic Effects Monitoring Program Sample Locations



Samples are collected 4 times each year – once through the ice and three times during the open water season from July to October. The sampling stations in Lac de Gras are located near the mine (where effects would first be expected to be measured) and far away from the mine (where effects would take much longer to measure). This way changes in the lake caused by the mine can be measured over time (temporal) and can be measured near the mine site and further away (spatial).

During the Environmental Assessment that was completed before the mine was built, it was predicted that the mine would cause some effects on the lake. The purpose of the AEMP is to see if those predictions were correct and to make sure the effects don't harm the fish in Lac de Gras. Effects are categorized as being low-level, moderate-level or high-level. When certain effects are measured that were not predicted, Diavik conducts Special Effects Studies as part of the AEMP. Special Effects Studies are conducted to focus on specific areas based on data and results from the AEMP.

The AEMP Design Document (v 1.0) was revised and submitted to the WLWB in December 2007. This document contains the final AEMP design specifications and the design basis (it says what Diavik will do to complete the AEMP and how it will be done).

In addition to the AEMP Design Document, a Limnology Report was requested by the WLWB (as required by the water license) and submitted by Diavik in November 2007. The report was approved by the WLWB on 9 May 2008. Limnology is the study of lakes' biology, chemistry and physical and geological properties. This report contains a complete description of the limnology of Lac de Gras and is part of the AEMP.

1.1.1 2011 AEMP Annual Report

2011 was the fifth year of monitoring since the AEMP design was revised in 2007. The 2011 AEMP Annual Report was submitted to the WLWB on 31 March 2012 and was still under review at the time of this report.

The Aquatic Effects Monitoring Program was successfully completed during 2011, with the exception of sediment samples, as approved by the WLWB. The first round of sampling for the Aquatic Effects Monitoring Program (AEMP) was completed in April 2011. Open water AEMP sampling was completed from July to September (three open-water sampling events), including a lake trout health study.

Key findings of the AEMP are discussed in the Rolling Effects Summary (Appendix B), and therefore are not repeated here.

1.1.2 Other AEMP Submissions

In addition to the AEMP Annual Report, Diavik has submitted the following documents as part of the AEMP:

- Three Year AEMP Results Summary for 2007-2010 – This report was submitted to the WLWB in July 2011 as part of Diavik's water license conditions to show a comparison of the information collected from the new AEMP against predicted effects of the mine. This analysis is then used to determine if changes can or should be made to the AEMP. It was approved by the WLWB in May 2012.
- DDMI AEMP Version 3.0 – This document was submitted to the WLWB in October 2011 as part of Diavik's water license conditions to provide a revised program design every three years for review and approval through the WLWB process. The Three Year AEMP Results Summary report was used to determine what changes could be made, while still providing good monitoring results. The plan was approved by the WLWB in May 2012, with the exception of the effects criteria.
- AEMP Quality Assurance Project Plan (QAPP), last revised in May 2008 – This plan outlines the quality assurance and quality control procedures intended to support the collection of scientifically defensible and relevant data during the AEMP.

1.1.3 Discussion on AEMP Changes

In January 2008, Diavik met with the WLWB, EMAB, community representatives and various government agencies to discuss the AEMP. The purpose of the meetings were to discuss changes to the AEMP proposed by Diavik due to difficulties encountered completing the program in 2007. 2007 was the first year of a new (revised) AEMP.

Following the discussions, the proposed changes were reviewed and commented on by the parties. The WLWB decided that the modifications would not be approved and that the scope of the AEMP would remain unchanged until at least 3-years of monitoring are complete under the new AEMP. Additionally, the WLWB decided that since Diavik were unable to complete all of the sampling during the 2007 AEMP, that would not count as the first of three years of

monitoring (i.e. 2008 will be counted as year 1). For this reason, the 2010 monitoring season was considered year 3 of the program and a review of the AEMP was scheduled for 2011.

The two reports listed in Section 1.1.2 were submitted to support the review and meetings were held with community representatives, EMAB staff, regulators and the WLWB to discuss the proposed changes and respond to any questions. The program has now been changed to include the following monitoring programs and frequencies.

Table 2: New AEMP Sampling Schedule												
Component	AEMP Version 3.0						AEMP Version 4.0					
	2012		2013		2014		2015		2016		2017	
	IC	OW	IC	OW	IC	OW	IC	OW	IC	OW	IC	OW
Water Quality - Mixing Zone Boundary ^b	√	√	√	√	√	√	√	√	√	√	√	√
Effluent Plume (conductivity)	√	√	√	√	√	√	√	√	√	√	√	√
Water Quality - Routine, Nitrogens and Metals (basic program)	√	√	√	√	√	√	√	√	√	√	√	√
Water Quality - Routine, Nitrogens and Metals (comprehensive program)			√	√					√	√		
Total Phosphorus, Total Nitrogen and Chlorophyll <i>a</i> _c	√	√	√	√	√	√	√	√	√	√	√	√
Phytoplankton				√						√		
Zooplankton				√						√		
Sediment Quality				√						√		
Benthic Invertebrates				√						√		
Large Bodied Fish - Palatability and Tissue Chemistry		√						√				
Large Bodied Fish - Fish Tissue Mercury						√						√
Large Bodied Fish - Fish Health										^d		
Small Bodied Fish - Fish Health				√						√		
Dust Deposition	√	√	√	√	√	√	√	√	√	√	√	√
TEK Program				√						√		
Annual AEMP Report ^e	√		√		√		√		√		√	
AEMP Three-year Summary Report					√						√	
AEMP Updated Design Document						√						√

Notes: IC = ice-cover period; OW = open-water period a - See Table 5.7-1 for sampling locations and frequency descriptions. b - Water quality sampling at the mixing zone boundary is conducted on a monthly basis. c - Sampling for chlorophyll *a* is not conducted during the ice-cover period. d - Sampling to be conducted only if triggered by 2013 small-bodied fish results. e - Annual and 3-year summary AEMP reports will be submitted in March.

1.2 Air Quality (Dustfall & Emissions)

Air, wildlife and water quality concerns related to dust in the air, on the ground or in the water from mining activities were identified by all parties to the Diavik Diamond Mine Environmental Agreement as a concern. As part of the environmental monitoring program and commitments outlined in the Environmental Effects Assessment report and Comprehensive Study Report, Diavik has developed a program to measure dust deposition resulting from mining activities that has been ongoing since 2001. The program goal is to understand dust deposition rates caused by project activities. Results are compared with the predictions outlined in the Environmental Effects Report, Climate and Air Quality (1998). Dust monitoring is also completed to provide data for the Wildlife Effects and Aquatic Effects monitoring programs. The objectives of annual monitoring for dust deposition are to:

- Measure dust deposition rates at various distances from the mine, using snow core samples and dust gauges; and,
- Determine physical and chemical characteristics of dust that may be deposited from mining activities.

The Dust Deposition Monitoring Program has been revised several times since 2001 as the project evolves and sample locations are added, removed and relocated for various reasons. The sampling stations were established through a transect approach (series of sample locations that extend outwards in generally straight lines from the mine site) and include dust gauges (sampling devices that collect dust for analysis) and snow survey stations (locations where Diavik collects samples of the snow to measure the amount of dust deposited over the winter and the water quality of the snow where dust was deposited).

1.2.1 Dust Deposition Report

This report was submitted to the WLWB in March 2012 as Appendix I of the AEMP Report and still under review at the time of this report.

There are 24 snow survey stations along five transects on land and ice around the mine site. The stations (not including control stations) range from approximately 25 to 2000 meters (82 feet to 1.5 miles) from mining operations. Control stations are also setup further from the mine site; these are used to measure natural (or background) dust deposition. Snow core sampling was completed in April 2011. There were 11 dust gauges (including two control gauges) placed at various locations on East Island and surrounding islands. They were collected for analysis in March, June, September and December of 2011.

The key findings reported in the 2011 Dust Deposition Report were:

- Dust deposition rates continued to be greatest adjacent to mining operations and construction activity and decreased further away from the mine. Deposition rates were also influenced by localized mining activity such as blasting, as well as by prevailing winds;
- Measured dust deposition rates exceeded the predicted rates from the 1998 Environmental Effects Report. The 1998 predictions were based on ambient air

quality criteria at the time and did not take into account construction and operational requirements related to underground development, which increased in 2005 and continued through to 2011, the periods in which the highest rates were generally measured; and

- Water chemistry from melted snow collected from the snow survey stations indicated that metals monitored were below effluent discharge criteria from the Water Licence (these are the levels that Diavik must meet for water being discharged from the mine site).

In 2011, Diavik revised the air quality emissions model to revisit the predictions that were made in 1998 and assess whether the current monitoring program is collecting the right information. New sampling methods have been proposed in response to the revised model and were being discussed with communities, EMAB and government at the time this report was issued. Once sampling methods have been agreed to, the new methods will be used at Diavik and reported on next year.

1.3 Meteorological (Weather)

Diavik has collected meteorological data since the 1994 baseline data collection program. The meteorological station at Diavik measures: wind speed, wind-direction, precipitation, ambient air temperature, incoming solar radiation, and relative humidity. Manual precipitation stations are also used to measure rain and snow, as well as evaporation. A second weather station was installed in September, 2003 to aid in evaporation data collection, as well as providing supplementary weather data.

Meteorological data is also used for a variety of programs at Diavik such as Air Quality Modelling. In 2011, data was recorded hourly and summarized daily from January 1st through December 31st.

Climatic conditions at the Diavik site for 2011 had a maximum ambient air temperature in July of 24.7°C. The minimum ambient air temperature was -40.9°C and occurred in February. The annual average ambient temperature was -8.1°C and is similar with all previous monitoring years.

Relative humidity ranged from a low in June of 62.6% to a high of 91.7% in October. Total precipitation at the project site was 305.5 mm, with the wettest months being August and September. Winds were recorded from the Meteorological station throughout the year. The prevailing winds were mostly from the northeast. There was an overall average wind speed of 5.6 m/s (including calm periods).

Meteorological monitoring will continue at Diavik in 2012.

1.4 Surveillance Network Program (Water Quality at the Mine Site)

Diavik monitors water quality around the mine site in accordance with the Surveillance Network Program (SNP), which is a component of Diavik's Water Licence. The SNP outlines where Diavik collects water samples, how often samples are collected, and what parameters

(metals, nutrients, other compounds and other water quality characteristics) are to be measured. The SNP includes sample stations for:

- North Inlet Water Treatment Plant effluent;
- Lac de Gras water near the North Inlet Water Treatment Plant effluent discharge;
- Pit Water;
- Underground Water;
- PKC Water;
- North Inlet Water;
- Collection Ponds;
- Seepage and Groundwater Stations; and
- Sewage Treatment Plant effluent.



The SNP also outlines sampling requirements for discharges to Lac de Gras during dewatering activities, but this was not done in 2011.

Each month Diavik submits an SNP report to the WLWB outlining the previous month's SNP results. SNP data for the year is also compiled and presented in the Type A Water Licence Annual Report.

1.4.1 Temporary change to collection of SNP samples based on sample results

There were no such changes during 2011.

1.4.2 Toxicity Testing

As part of Diavik's Water Licence renewal in 2007, protocols were to be developed for conducting toxicity testing. Toxicity testing involves putting different organisms (fish and other aquatic species) in effluent and monitoring their activity and survival over a specified period of time. The Water Licence indicates that protocols must be developed for acute toxicity and chronic toxicity. Acute toxicity refers to effects of a substance which result from a short exposure, while chronic toxicity refers to effects resulting from exposure to a substance over a long period of time.

The acute toxicity protocol was developed in early 2008 and has been implemented since May 2008. It is sampled on a quarterly or monthly basis, as defined in the water license. There were no concerns noted for toxicity samples taken during 2012.

Diavik determined that development of a chronic toxicity protocol using *Hyaella azteca* for the Diavik mine was not feasible. Diavik has put forward some other monitoring methods to address this requirement.

1.5 Seepage Monitoring Report

This report was submitted to the WLWB in March 2012 and was still under review at the time this report was prepared.

Diavik monitors dams and dikes around the mine site for seepage. The dikes and dams are designed to hold back water, however, some seepage through these structures is expected. The purpose of the survey is to check areas of potential seepage so that Diavik can take appropriate measures to address seepage issues. The monitoring includes regular inspections of the dam and dike structures and collection of water samples. Water samples are collected as part of regular monitoring (seepage stations and groundwater wells) and when a new seepage is observed. Each year, Diavik submits a Seepage Survey Report to the WLWB (a requirement of the Water Licence), detailing seepage monitoring and sampling from the previous year. Diavik regularly updates the AANDC Inspector of how Diavik is (or plans to) address seepage issues at the mine site.

Diavik is in a zone of continuous permafrost, which means the ground remains frozen all year round except for a thin layer at the surface, called the active zone. The active zone thaws in spring and freezes again in the fall. Under natural conditions, water seepage on East Island occurs in the active zone mostly as surface runoff, however, some seepage occurs in the melted ground, called melt water or groundwater. Typically, seepage occurs from May through to the beginning of October. The PKC contains enough water that it does not completely freeze in the winter, and therefore seepage can occur all year round.

Diavik has a drainage control and collection system to intercept seepage before it enters Lac de Gras. Seepage water from the PKC, the Country Rock Pile, and other areas around the mine is collected in a series of collection ponds, which are all monitored as part of the seepage survey. There are some times where runoff from other areas of the mine may not

go into a pond and will enter Lac de Gras, but it is usually a small amount of water for a short period of time.

Results

The 2011 seepage survey monitored 22 stations, including: 7 seepage survey stations, 5 groundwater monitoring stations, 10 collection pond stations and 2 additional seepage areas.

Seepage Survey stations and groundwater monitoring wells were inspected weekly, and sampled monthly if seepage was present. Collection Pond stations were sampled monthly during the open water season. A154/A418 dike seepage stations were not monitored in 2011 as they are only required to be monitored under the SNP if seepage is being directed to the lake. Dike seepage was directed to the North Inlet for all of 2011.

There was sufficient flow to allow for seepage samples 5 times during 2011. One was from 1645-23 (October; north side of island, drains into North Inlet) and two were from 1645-24 (June & September; south side of island, drains into Lac de Gras). The second was from 2008-SEEP-01, where zinc levels were slightly above license requirements, similar to previous years (0.09 mg/L at the highest). The third was from the Pond 2 area (2011-SEEP-01) and had slightly elevated zinc (0.06 mg/L) and nitrite (5.0 mg/L, limit of 2 mg/L). Results from 1645-23 showed a level of zinc equal to the regulated value in the water license (0.02 mg/L). The two samples from 1645-24 had some higher levels for a few elements because of suspended material in the surface runoff (noted below). Baseline conditions in this area show elevated zinc in water. The amount of water flowing in these areas was low.

Element	Unit	Grab Sample Licence Limit	1645-24 – June	1645-24 - September
Ammonia	Mg/L	12.0	44.6	77
Aluminium	Mg/L	3.0		4.58
Zinc	Mg/L	0.02	0.122	0.299
Nickel	Mg/L	0.1		0.233
pH	pH unit	5.0 to 8.4	4.85	4.33

No samples were collected from the groundwater monitoring stations as the wells were dry throughout the year. Water from Collection Ponds is not sent to Lac de Gras, but to the PKC or North Inlet. For this reason, water license criteria do not apply to pond water. Details of laboratory results for all stations can be found in the annual seepage report.

Several other areas of seepage were monitored in 2011 and included those outlined below.

1. PKC East Dam – two areas were identified that had some minor seepage from the east dam of the PKC in 2011. The water from both seeps reported to Pond 5 and was pumped back to the PKC.
2. PKC West Dam – seepage was observed in this area in 2009 and 2010. A dam was built upstream of the seepage in August 2010 in order to re-direct it to Pond 4; no seepage was seen during 2011, indicating that the dam worked. Seepage from the

PKC West Dam into Pond 4 was noted but it was collected by pump and sent to another, larger pond (Pond 3) for containment.

3. Pond 5 – a bulge was observed in the Pond 5 liner (a liner is placed inside of a dam to prevent water from flowing through the dam) in 2008 from water building up behind it. Diavik released the pressure by making two small holes in the liner and maintained water levels below those holes from 2009-2011. As a result, there was no seepage observed downstream of Pond 5 in 2011.
4. PKC Seepage Interception Wells – DDMI installed 8 wells in the PKC dam rockfill during the PKC raise in 2010; the purpose of these wells is to intercept potential seepage from the PKC. The wells are placed in areas where the landscape would mostly likely direct seepage. The wells can be pumped down if water collects within them. Three of the wells were pumped down in 2011 and this was likely the reason for the reduced seepage noted south of the PKC. An additional 7 wells are planned for installation in this area during 2012.
5. Pond 13 – to collect any seepage that may flow from Pond 13, a culvert was installed through the road downstream and a pump system was put in to place in 2009. No seepage was observed to enter the lake during 2011, and temperature instruments in the pond showed that the ground remained frozen throughout the summer.
6. Pond 2 – an area of Pond 2 that had previously leaked but been fixed in 2006, experienced a small leak again this year. It was found that the advancing rock pile had encroached on the dam that was constructed and caused a seep. The water was collected and pumped back into the pond.
7. North Inlet East Dike – instruments used to monitor the dike temperature (an indicator for possible seepage) showed a warming trend in 2008. In 2009 and 2010, DDMI installed an additional 33 thermosyphons (cooling equipment) in the dam to promote freezing, as well as two new thermistors (temperature gauges) to improve monitoring coverage. DDMI did a test in 2011 to lower the north inlet level and see if the dike was holding back water. The areas where instruments were added to improve freezing showed success. There was another area identified during this test that could be improved with additional instruments; these are planned for installation in 2012.

For each of the above 7 items, Diavik kept the AANDC Inspector informed of seepage issues and of the short and long term plans for monitoring and repairs.

1.6 Wildlife & Plant Monitoring

As per the Environmental Agreement, Diavik developed a Wildlife Monitoring Program to check the accuracy of predictions in the Environmental Assessment and to assess the effectiveness of actions that have been taken to reduce impacts to wildlife. This program was developed based on information from four years (1995 – 1998) of wildlife baseline studies, community consultation, recommendations developed during the Environmental Assessment, and years of project activity monitoring. This program takes into consideration wildlife and

wildlife habitat-based technical issues raised by the Environmental Monitoring Advisory Board (EMAB) and Environment and Natural Resources (ENR) during early reviews of this program. The program was updated in 2009 and is now referred to as the Wildlife Monitoring and Management Plan (WMMP).

The WMMP is a method for observation, mitigation and improving procedures for wildlife and habitat management at the mine site. The WMMP is therefore closely linked with Diavik policies and guidelines, management plans and standard operating procedures (SOPs). There are several SOPs to protect wildlife and these are evaluated as part of the WMMP.

The program includes monitoring the following:

- Vegetation/Wildlife Habitat;
- Caribou;
- Caribou Advisory;
- Caribou Mitigation Effectiveness;
- Grizzly Bear;
- Wolverine;
- Waste Management;
- Raptors; and
- Waterfowl.

The Wildlife Monitoring and Management Plan is adaptive. It can be changed in response to changes or unexpected outcomes that are identified from monitoring or from new information.

In addition to continued on-going monitoring programs, Diavik has also been participating in a joint review process of the diamond mine wildlife monitoring programs since late 2008. This process continued throughout 2011 with a particular focus on changes to the grizzly bear monitoring program during a workshop in November. The workshop included representatives from the three diamond mines (Diavik, EKATI and Snap Lake), each of the Monitoring Agencies (EMAB, IEMA and SLEMA), the Government of the Northwest Territories (GNWT) department of Environment and Natural Resources (ENR), Federal government departments, the Wek'èezhii Renewable Resources Board (WRRB) and the communities.

1.6.1 Wildlife Monitoring Report

This report was submitted to GNWT Environment and Natural Resources, the Environmental Monitoring Advisory Board and Parties to the EA in March 2012.

As a requirement of the Environmental Agreement, Diavik conducts a wildlife monitoring program. This program was created to collect information about plants, animals and birds in the area to see if they are affected by the mine. This is measured by comparing results to predictions made in the Environmental Assessment. A comprehensive (statistical) analysis is conducted every 3 years and was completed at the end of the 2010 monitoring year for caribou, wolverine and falcons. Below are some notes from the 2011 program. Further details are provided in Appendix B of this report.

Vegetation/Habitat Loss

Direct vegetation (plant) loss in 2011 from mine development did not increase, so the total area lost to date from mining activities remains at 9.71 km². This is within predicted limits.

Caribou

Plant loss in 2011 from mine development did not increase, so the total amount of plants that caribou eat continues to remain below predicted amounts at the end of 2011.

Road and rock pile surveys were conducted 59 times and there were 9 observations made on 5 different days. Of these, two were less than 50 m from the road, 6 were between 50 and 200 m and the remaining one was on the road. There was a period of time from 7 to 27 October 2011 where approximately 200 caribou were present on the south side of the island. During this time, there were three escort (herding) events to move caribou away from areas of development at Diavik. The first was to move caribou off the airstrip, the second was to move caribou away from a road intersection and the third was to move caribou off of a haul road access area.

There were no caribou killed or injured by mining activities, but one dead caribou was found near the airstrip as a result of predators nearby (bears and wolves). Two other caribou mortalities were found less than a kilometer away from the mine site, out on the ice of Lac de Gras.

Aerial surveys for caribou were suspended in 2011. Past data have shown a zone of influence around the mine that is larger than originally predicted.

Diavik staff completed a number of ground-based caribou behavioural observations, or scans, around the mines throughout the fall. A total of 104 scans were done in 2011, covering distances from less than 2 km to greater than 30 km from the mine site. Data have shown that behaviour of caribou without calves appears to be more closely linked to weather and insect activity. Caribou groups with calves tend to increase their time spent feeding/resting as they move further away from the mine.

Grizzly Bear

Plant loss for the species that grizzly bear use did not increase in 2011 and remains lower than predicted. There were a total of 56 grizzly bear visits to site during summer, including a

group of 3 bears that frequented the mine site on a regular basis. No deaths or injuries occurred to bears during 2011.

Raptors

Raptor monitoring was changed in 2012 to focus more on birds using mine structures for nesting and/or breeding. Surveys of mine structures, including buildings and pit walls, were done starting in early spring. No raptors nested on mine structures during 2011. However many were seen flying over the mine site so it is likely a nest was nearby. There were no raptors found dead due to mining during 2011.

Wolverine

Wolverines were present on East Island in 2011, and were seen 4 times on East Island. There was no wolverine that died because of the mine in 2011.

The spring snow track survey was completed with the help of a community assistant. Diavik also participated in the regional wolverine DNA hair-snagging program conducted in cooperation with the GNWT and BHP-Billiton during April 2011. A total of 18 individuals (9 male, 9 female) were identified in the area around Diavik mine.

Waterfowl

There was no more shallow or deep water areas developed in 2011, therefore the total area of water habitat loss is unchanged and within the predicted amount. Waterfowl surveys were completed in May and June 2011 and migratory birds were seen at the East Island shallow bays and are still using ponds and wetlands changed by or created for the mine site.

Waste

Waste inspections continued to be done every other day during the year 2011. Food and food packaging were found during some inspections (11%) at the Waste Transfer Area and some (31%) at the inert landfill. This was similar to results from previous years. Environment staff continues to educate workers on the importance of segregating wastes properly.

1.7 Traditional Knowledge/Inuit Qaujimajatuqangit (TK/IQ) & Community Participation

Diavik has been involved in a joint review of the diamond mines wildlife monitoring programs over the past couple of years. This process continued throughout 2011 and included one workshop on grizzly bears with people from the three mines (Diavik, EKATI, Snap Lake), each of the Monitoring Agencies (EMAB, IEMA and SLEMA), the Government of the Northwest Territories, Environment Canada, the Wek'èezhii Renewable Resources Board and each of the communities. This intent of this process was to have open communication with all parties to discuss the various monitoring programs at the mines and determine the preferred approach for future monitoring. The outcome of the 2011 workshop was recommendations for the mines to consider when determining their grizzly bear monitoring program methods.

Diavik initiated a desktop review of Traditional Knowledge/Inuit Qaujimajatuqangit (TK/IQ) in 2010, in order to find other community organizations or companies that have successfully developed TK/IQ monitoring or closure planning programs that could be useful for the Diavik mine. The study was complete and identified a few examples of TK/IQ monitoring programs, but overall it was found that they are generally not well documented and that there are some common challenges that companies and Aboriginal organizations face when trying to develop such programs.

In 2011, there were discussions on the possibility of the Environmental Monitoring Advisory Board creating a Traditional Knowledge Panel, as provided for under the Environmental Agreement. While this did not occur in 2011, DDMI is hopeful that such a Panel will be formed in 2012 to assist with development and review of a TK/IQ framework and ideas for TK/IQ monitoring at Diavik.

Diavik is providing funding for two TK/IQ Researchers, Natasha Thorpe and Kathy Scott, to work with the 5 Participation Agreement communities to develop a TK/IQ monitoring program for fish and water quality, building on the work that had been done in the past for the fish palatability (tasting) study that has been done at the mine since 2002. During 2011, a proposal for the program was developed for review by communities and efforts to begin organizing community meetings to establish the process for program development began. The program is scheduled to be conducted during 2012.

The approach for the grizzly bear monitoring program has been developed in cooperation with EKATI mine and involves Traditional Knowledge holders to identify the preferred habitat of grizzly bear and then determine the location to set the posts that will collect hair samples. Community assistants will also be involved in the program to assist with post construction and deployment.

During 2011, Diavik continued to have two seasonal positions within the Environment department specifically for people from the communities interested in working in the Environment field. The department also increased the number of permanent Environment Technician roles by 2. This resulted in 5 Aboriginal employees in the Environment department conducting the water and wildlife monitoring programs for 2011.

Additionally, Diavik used the knowledge and skills of community assistants for the following programs:

- Two assistants for the wolverine hair snagging program in the spring of 2011;
- One community assistant for the wolverine track survey in the spring of 2011;
- One community assistant to assist with the m-lakes fish habitat compensation program on the mainland throughout the summer; and,
- One community assistant to work with Golder Associates Ltd on a non-lethal lake trout survey during summer 2011.

2. Management Plans

Management plans are formal documents that Diavik writes to provide employees the information required to control environmental risks in their work areas. Many of these plans are also required for review and approval by regulators so that they can be better informed of how Diavik manages environmental risks at the mine.

2.1 Ammonia Management Plan, v4.1 (Pit Water Quality)

Ammonia is a compound that exists naturally, but is also present in some man-made products like fertilizer and explosives. Ammonia is a nutrient that can promote the growth of certain plants and organisms in a lake, but like any other compound, it can also be unhealthy for some organisms if levels are too high. Ammonia is present in water at Diavik from the explosives that are used in the open pits and in the underground mine. Diavik's Water Licence sets limits for how much ammonia is allowed in water that is treated and put back into Lac de Gras. Diavik has an Ammonia Management Plan that details the way Diavik will work to minimize the amount of ammonia in water at the mine site.



As part of the mediation agreement that resulted from Diavik's application to amend their water license, Diavik agreed to prepare and implement the Ammonia Management Plan. The Plan has background information on ammonia management, Environmental Assessment predictions, site conditions, an overview of ammonia and aquatic effects, and ammonia management options. It also covers Diavik's recommendation for the water license discharge limits for ammonia, how ammonia management performance will be evaluated, and specific details of ammonia management techniques.

The two specific objectives of the Ammonia Management Plan, as outlined in the plan, include:

1. To ensure that explosives are used and water is managed in such a way that ammonia losses do not result in a change to the trophic status (the amount of nutrients that are available to plants, fish and bugs that live in the water) of Lac de Gras or adverse environmental effects.
2. To continually work towards achieving the lowest practical ammonia levels in the mine waters and final effluent discharge.

The plan was also used to assist in setting water discharge limits.

The Wek'èezhii Land and Water Board arranged for an expert review of all information, with the intention of providing direction to Diavik after the review was completed.

The latest version of the Ammonia Management Plan was submitted to the WLWB in March 2012. Diavik reviewed the plan in 2011 and the WLWB noted that ammonia levels had continuously been below water license discharge criteria and below what was originally predicted, so the plan and reporting requirements could be simplified while still clearly outlining actions required for blasting activities (surface and underground), operational procedures, water management & monitoring and contingencies.

2.2 Closure and Reclamation (Closure Planning)

Closure and Reclamation planning refers to the things Diavik will do to close the mine site in a way that is safe for people and the environment. Even though Diavik will still be operating for many more years, it is important to plan closure early on so that Diavik, governments, regulators and communities can discuss how it can best be done. Another reason to plan closure early on is because some parts of the mine site will be progressively closed, which means that Diavik will be doing things related to closure in these areas long before the mine closes. An example of progressive closure is how Diavik is placing rock inside the dikes to build shoals so that location will already be prepared as new fish habitat when the dikes are breached and the lake returns to this area.

2.2.1 Interim Closure and Reclamation Plan (v3.2)

This version of the plan was submitted to the WLWB for review in July 2011 and was approved in September 2011.

As part of Diavik's water license renewal process, an Interim Closure and Reclamation Plan (ICRP) was submitted to the WLWB for review in 2009. This was the third update of this plan, with the original being submitted in 2001 and an update in 2006. As part of the updated closure plan, closure goals (overall vision for what the organization would like to achieve), objectives (steps the organization needs to take to achieve the goals – specific and measureable) and criteria (a standard against which success is measured) were provided. Sections of the ICRP are:

- Introduction - a short project history and summary of permit and authorization requirements relating to closure and reclamation planning at Diavik mine;
- Project Environment – a description of the environmental setting in the area of the mine;
- Project Description – an overview of the mine plan, site buildings and facilities, area history and geology;
- Requirements for Permanent Closure & Reclamation – an overview of current plans, objectives and criteria, as well as key considerations for each mine area (e.g. PKC);
- Progressive Reclamation – identifies opportunities for starting some reclamation work at the mine site while operations are still on-going;
- Temporary or Interim Closure Measures – outlines goals, objectives and activities that would be required to temporarily close the mine;

- Schedule of Activities for Permanent Closure – a timeline showing when the actions required for closure occur and how they relate to each other; and,
- Post-closure Site Assessment – identifies the approach and environmental aspects that would be monitored after closure.

The Interim Closure and Reclamation Plan is a full report which considers engineering design, research and planning for the closure of all the major components of the mine including: re-vegetation, fish habitat restoration/rehabilitation and monitoring, open pits, underground, dikes, dams, rock piles, the Processed Kimberlite Containment Facility, ponds, the North Inlet, buildings, fuel tanks and other infrastructure. Included is a thorough description of closure ideas for each area of the mine, as well as plans to move forward with these designs. However, because it is an interim plan, it does not include final closure designs or details on specific after-closure monitoring programs. These will be developed in future versions of the plan and Diavik plans to work with communities to figure out how to get community input on the plans, objectives, criteria and designs for each of the mine areas, as well as how to incorporate TK/IQ into the planning and design phase.

2.2.2 Reclamation Research Plan (2002)

This Reclamation Research Plan was developed as per Diavik's Type A Water Licence, Part L, Section 3. In September 2011, the Wek'èezhii Land and Water Board directed Diavik to prepare annual ICRP Progress Reports, starting in October 2012. This new process replaces the Water Licence requirement to provide a summary of activities against the Reclamation Research Plan. The reason for the reclamation research plan and activities is to increase the confidence of some of the closure ideas for different areas of the mine, and to get more information on the possible closure options before a final closure plan and criteria are set. An update will be provided in this report next year.

2.3 Country Rock Management (Waste Rock Separation to Reduce ARD)

In order to mine kimberlite, Diavik needs to remove other rock from the pits and underground, called Waste Rock or Country Rock. Some Country Rock is used at the mine site to build things like roads and dams. The remaining Country Rock is placed in a rock pile. Some types of Country Rock have minerals in them that can cause water to become acidic when it runs over the rock. The acidic water can dissolve metals from the rock, which can be carried by the water. This process is known as Acid Rock Drainage (ARD) and is something that mines all over the world deal with.

Diavik tests the rock before it is mined for how much sulphur is in it (a good indicator for ARD potential) by collecting samples of blast hole cuttings (blast holes are required for explosives to be used to break up the rock and the 'cuttings' are the small pieces of rock that come out of the blast hole during drilling). Diavik also classifies rock using a visual classification method. The rock that has high or medium potential to generate acid (known as Type 3 and Type 2 rock) is stored in the rock pile and enclosed so that ARD will not occur. Diavik only uses rock that has very little ARD potential (known as Type 1 rock) for things like road and dam construction.

The way Diavik's manages rock at the mine site is detailed in the Waste Rock Management Plan, discussed below.

2.3.1 Country Rock and Till Storage Updated Design Report Submitted to MVLWB in 2001

This report outlines the plan for storage of rock and till (soil and sediments that were removed from the surface after the dikes were built) materials from the development and mining of the three kimberlite pipes in Lac de Gras. The updated design follows the decision to separate rock into three types based on acid generating potential that may produce metal-impacted water (i.e. this report conforms with the Waste Rock Management Plan, discussed below) and details how and



where these types of rock will be stored after being removed from the pits. The design was updated from the original 1999 Design Report. Parts of this plan are being reviewed/revised as part of the Closure and Reclamation review process (see Section 3).

2.3.2 Waste Rock Management Plan, v6

This plan was submitted to the WLWB in March 2011 and was approved by the Board in August 2011. No further update was done in 2011/12 as there have been no changes to the way Diavik handles waste rock.

This document talks about the identification and separation of potential acid generating rock produced from mining the A154 and A418 kimberlite pipes. As outlined in the Country Rock and Till Storage Updated Design Report, separation is done to minimize the potential for ARD from the Country Rock Pile.



This plan includes two methods for identifying rock types for segregation. The plan includes the sulphur analysis method (using sulphur content to measure ARD potential), and presents the visual classification method. It also provides updates reflecting changes in rock management required for underground operations, including temporary storage of rock that comes to the surface from underground.

The plan also includes consideration for storage of Type 3 rock under water. This is recognized as an effective method of rock storage to prevent ARD. There are currently no plans to store Type 3 rock under water.

Temporary waste rock storage is also required for the underground operation and the Waste Rock Management Plan outlines the location of these storage areas, as well as storage practices that DDMI has outlined for different types of rock. Because different equipment is

used to haul material at the surface than is used underground (i.e. bigger trucks on surface), there is a requirement to store this material for a short period of time.

Best management practices for handling country rock during operations are presented in this report. Rock that is classified with sulphur analysis is segregated into three types:

- Type 1: considered clean rock with <0.04 percent total sulphur;
- Type 2: considered intermediate rock with a 0.04 – 0.08 percent total sulphur and minimal to no potential for acid generation; and
- Type 3: considered potentially acid generating rock with >0.08 percent total sulphur.

The sulphur level for each drill hole sample is classified as either Type 1, 2 or 3. Geologists then overlay the sulphur results over the blast pattern and mark off smaller units of each rock type. The mound of blasted rock is then flagged off by rock type so it can be loaded and trucked to the proper dump area in the waste rock pile.

The visual classification method identifies rock as being Type 1 or Type 2/3 (i.e. groups Type 2 and Type 3 rock together).

The plan to classify, separate and cover the potentially reactive rock meets the best management practices proposed during the environmental assessment and the water license permitting process.

2.3.3 2011 Waste Rock Quantities

The figure below shows the amounts of these types of materials moved on the island in 2011.

Table 3: Monthly Rock Moved at Diavik in 2011 (in million cubic meters)

Month	Overburden (till and sediment)	Type I Rock	Type II Rock	Type III Rock
Open Pits				
January	0.00	0.21	0.00	0.13
February	0.00	0.24	0.00	0.09
March	0.00	0.17	0.00	0.21
April	0.00	0.33	0.00	0.07
May	0.00	0.25	0.00	0.22
June	0.00	0.16	0.00	0.13
July	0.00	0.17	0.00	0.16
August	0.00	0.10	0.00	0.11
September	0.00	0.05	0.00	0.15
October	0.00	0.07	0.00	0.12
November	0.00	0.03	0.00	0.06
December	0.00	0.02	0.00	0.07
Underground				
2011 UG Year Total	0.00	0.03	0.00	0.06
Total (Pits + UG)	0.00	1.83	0.00	1.58

2.4 Hazardous Materials Management Plan, v16 (Chemical Storage)

This plan was submitted to the WLWB in March 2012 and was still under review by the WLWB at the time this report was prepared. It is a requirement of the Water Licence that this plan be reviewed every year and updated as required.

Diavik must transport, store, handle and use hydrocarbon products, explosive materials, and other chemicals as part of the mining operation. Hazardous Materials must be transported, stored and handled safely and efficiently. Prevention, detection, containment, response, and mitigation are the key elements in the management of hazardous materials. Diavik is committed to minimizing the potential for harmful effects on wildlife, plants and aquatic life and ecosystems that may result from accidental spills of harmful substances. The purpose of this plan is to outline procedures for managing hazardous materials.

The Hazardous Materials Management Plan lists the types and amounts of hazardous materials on site and describes storage for each type of material. It describes ways to protect the environment such as:

- Purchasing and inventory control procedures;
- Secondary containment facilities for petroleum products (this means that things like diesel are stored in tanks that either have built-in containment or are constructed in areas that have containment so that spills, leaks and overfills do not get released to the environment) ;
- Proper recycling and/or disposal methods for hazardous materials;
- Inspection and monitoring of petroleum products, explosives products, and other hazardous materials stored on site; and,
- Training for personnel that handle hazardous materials.

The Plan also describes plans for closure of the mine and how hazardous materials will be removed from site during closure.

2.5 Operational Phase Contingency Plan, v16

This plan was submitted to the WLWB in March 2012 and was still under review at the time this report was prepared.

The purpose of the Operational Phase Contingency Plan (OPCP) is to provide response procedures for any accidental release (spill) of hazardous or toxic substances, as well as procedures for water management. The OPCP outlines the responsibilities of key personnel and Diavik's Emergency Response Team when responding to spills to the environment. Within this document are the emergency contacts listed for Diavik, contractors, government agencies, private organizations and nearby sites/operations. The OPCP gives guidelines for minimizing impacts to the environment from spills, which include:

- Preventing spills through proper transport, transfer and storage of hazardous materials;
- Regular inspection of equipment and storage areas;
- Training and exercises for the Emergency Response Team to ensure they are prepared for all types of material releases; and,
- Current inventory of response materials and equipment that would be required in the event of a release.

It includes updated quantities and types of hazardous materials stored on site, and a section on contingencies for the underground part of the mine operation. The Plan also includes maps noting sensitive fish and wildlife areas at the mine site, to provide guidance for mitigative measures in case a spill occurs in these locations.

2.6 Water Management (Water Movement & Treatment)

Water management is an important environmental aspect at Diavik. Water from many sources must be properly managed to protect the environment. This includes the water Diavik uses from Lac de Gras, water that enters the open pit and underground through the ground or by seeping through the dikes, water contained in the PKC, water contained in the North Inlet and water contained in collection ponds.

2.6.1 Water Management Plan, v10

This report was submitted to the WLWB in December 2011 and was approved by the Board in April 2012.

The purpose of Diavik's Water Management Plan is to describe how water around the site is managed and to provide a water balance for the mine site (discussed in the next section). The plan describes existing water management systems, and future water management changes that are anticipated. The Water Management Plan is a requirement of Diavik's Type A Water Licence and an updated version is submitted to the WLWB every December. Objectives of this plan include:

- Ensuring compliance with water license discharge and monitoring requirements;
- Minimizing use of fresh water and maximizing the use of recycled water; and,
- Anticipating and managing water handling issues.

To meet these objectives, Diavik has designed water systems with back-up plans to lower risks. DDMI also monitors and reports all major water through a Project Information Management System (PIMS).

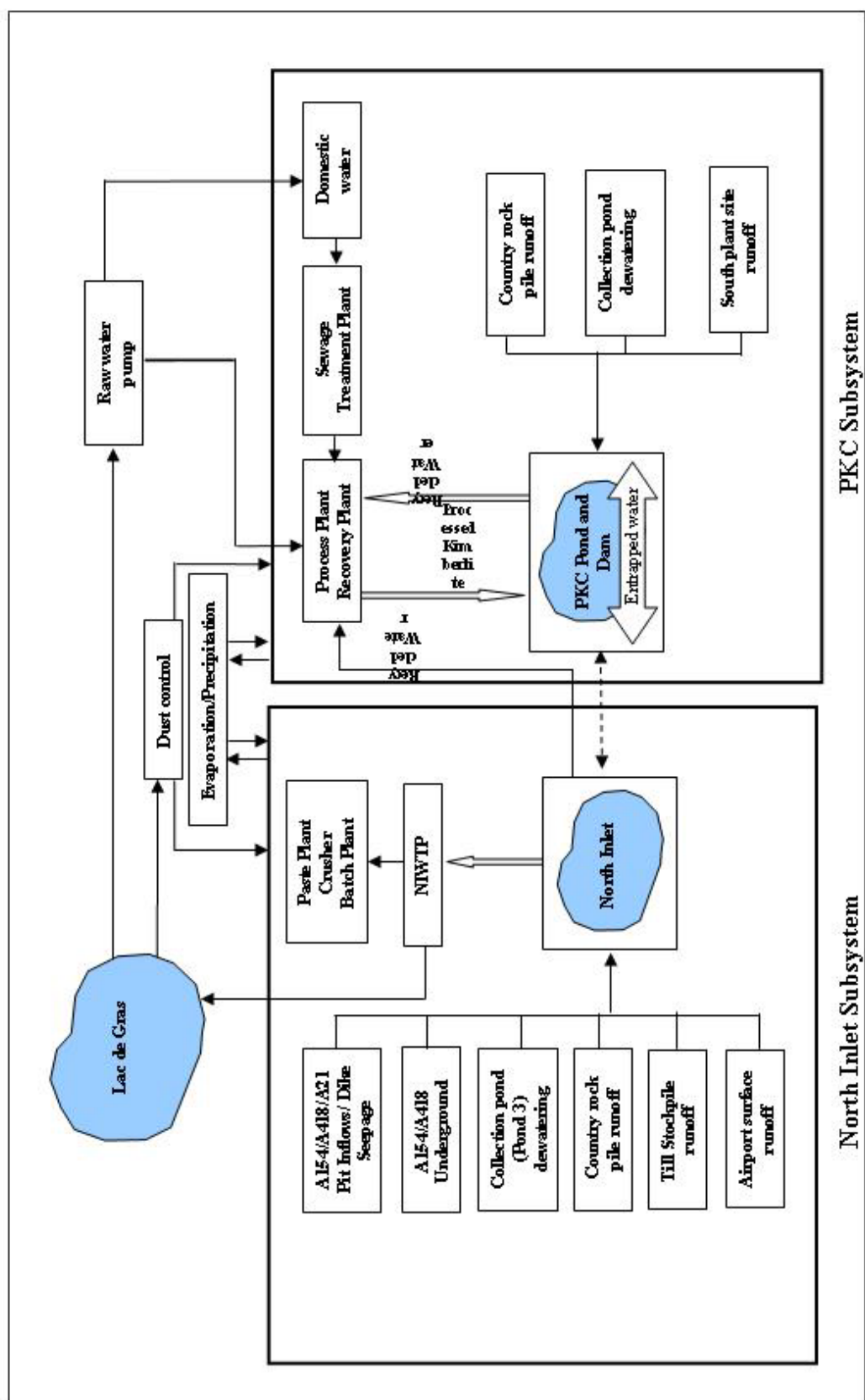
The plan covers management, monitoring and control of water. Details of actual water use at Diavik are outlined in the Type 'A' Annual Water Licence Report.

2.6.2 Site Water Balance (Water Flow)

A computer model was set up to predict water flows at the Diavik site from 2003 to 2023. The water balance model uses predictions and assumptions, which allow for both long and short term (1-5 year) planning. As part of the Water Management Plan, Diavik updates the site water balance each year.

This model looks at two main areas - around the North Inlet and around the Processed Kimberlite Containment (PKC) Facility. The water balance gives Diavik an idea of the amount and location of water on site at any given time, so that planning can take place for handling and treating water. The figure on the next page provides a flow diagram of the Diavik water management system.

The results of this document are very similar to last year's. This water balance concluded that capacity in the North Inlet will be enough for predicted inflows and water movement under normal operating conditions for the life of the mine. It also concluded that the PKC facility is a sink for water in 2011 - more water is put in than can be taken out - so processing needs makeup water from another source for operations. Completing construction of the north inlet to process plant pipeline addressed this concern by providing makeup water from the North Inlet; this helps to minimize the amount of freshwater needed from Lac de Gras. With planned reduction in processing after 2011, this balance should change and the PKC could begin to accumulate water.



2.7 Waste Management Plan, v15

This plan was submitted to the GNWT Environment and Natural Resources and EMAB in March 2012 and no comments had been received at the time of issuing this report.

Diavik is committed to taking all necessary steps to ensure that the collection, storage, transportation and disposal of all wastes are being done in a safe, efficient and environmentally compliant manner. The Waste Management Plan outlines the management of waste and a waste minimization program. The main objectives of the plan are to:

- Outline procedures for the proper disposal of wastes;
- Minimize potentially harmful effects to the environment; and
- Comply with the Federal and Northwest Territories legislation.

The plan outlines the different types of waste that are created at Diavik as well as the proper way to handle/store/dispose of each type in order to minimize environmental impacts. The Plan includes:

- Storing, incinerating (burning) or land filling of waste;
- Details of waste facilities (including an approved landfill); and
- Training for operators that handle regular and hazardous waste.

The WTA is where Diavik stores different types of waste. Some of that waste is stored for a full year so that it can be hauled south on the winter road, however Diavik deals with some waste onsite (for example food waste at Diavik is incinerated). This document outlines daily and weekly inspections of the WTA, guidelines for operating the soil remediation area at the WTA, and general operating procedures for waste handling. The latest version of this plan is very similar to last year's plan.

3. Diavik Type 'A' Water Licence

A water license is required by projects operating in the NWT. The water license for Diavik is administered by the Wek'èezhii Land and Water Board (WLWB). This license sets out terms and conditions for construction, operations, monitoring and reporting on various aspects of the project. Type 'A' licenses are required for large projects such as Diavik.

3.1 Water Licence Annual Report

As a requirement of Diavik's Type 'A' water license, an annual report is prepared and submitted. Every year, the report provides information on activities related to water and waste including tables and figures on amounts, sources and uses for water used at the mine site, dewatering activities, water discharged to and from the PKC facility, amounts of waste rock moved, the amount of water pumped from the open pits and underground and numbers related to sewage.

The 2011 report was submitted in March 2012 in conjunction with updated management plans and updates to studies being undertaken as per the terms of Diavik's Water Licence. It includes a summary of operational activities and an update on studies related to reclamation (both similar to what is contained in this report) that occurred in 2011. A brief update of work carried out under management plans is given, as is a summary of changes or maintenance done on several facilities such as the Water Treatment Plant and the PKC. There is also a list of spills that were reported to government during the year. Many facts and figures of the report have been included throughout this Environmental Agreement Annual Report. It is too difficult to summarize all sections of the Water Licence Annual Report in this report, because of the amount of detail and figures. However, some of the highlights are presented below.

- 638,465 m³ of fresh water were used for drills, domestic use, kimberlite processing and dust control.
- Approximately 3.7 million m³ of water was recycled from the PKC and North Inlet for use in the process plant.
- 16 spills (greater than 100L or near water) were reported to the NWT Spill line in 2011. Spills were cleaned up and many were closed by the AANDC Inspector before the end of the year.
- 3.4 million m³ of country rock (including Type 1, 2 and 3) was removed from the open pits and underground during 2011.

2011 Fresh Water Use at Diavik:

Domestic Water: 82,399 m³
**Process Plant &
Dust Control:** 555,867 m³
Drills: 199 m³

1 m³ = 1,000 Litres or 264 gallons

As in past years of operations, fresh water was taken from Lac de Gras for many uses including domestic uses in the accommodations complexes, use at construction areas and maintenance shops, kimberlite processing in the Process Plant (water is needed during the process of removing diamonds from the kimberlite rock), dust control around the mine site (lake water is put on roads during the dry summer months to minimize dust) and drilling (drills at Diavik are used for exploration and for rock blasting and some of these drills need water in order to drill through the rock). Fresh water from Lac de Gras is used and Diavik also recycles water from the PKC and North Inlet. By recycling water, Diavik minimizes the amount of fresh water it takes from Lac de Gras.

4. Annual Inspections

The A154 and A418 dikes were built to allow the water to be pumped out of the area around the kimberlite pipes A154N, A154S and A418. The North Inlet, where Diavik stores water from the open pit and underground mines before it is treated in the water treatment plant also has dikes at both ends to separate it from Lac de Gras. The PKC and water collection ponds around the mine site have dams that are used to contain water inside of these facilities.

As part of Diavik's Water Licence, dams and dikes must be inspected each year.

4.1 Dams

Diavik hired a consultant to do an Annual Dam Safety Inspection for the dams of the Dredged Sediment Storage Facility (Pond 3) (Part H, Item 3f), Processed Kimberlite Containment (PKC) facility (Part H, Item 1f) and Drainage Control and Collection System (Part H, Item 2e). Part H of the water license requires that an inspection of the dams be completed by a Geotechnical Engineer in July/August of each year.

Suggestions that came out of the 2011 inspections were:

- The diligent inspections and monitoring of the structures and thorough documentation of the results should be continued; and,
- The PKC deposition within the facility should be carried out to minimize the time that the water is in direct contact with the dams, to minimize seepage from the PKC facility.

Diavik has addressed these recommendations as follows.

- DDMI remains committed to maintaining the current inspection regime.
- The current deposition plan will create a centralized pool with long beaches of fine PK material between the water and dams.

4.2 Dikes

The A154 dike was built in 2001 and 2002, and the initial dewatering (removing water from inside the dike to allow open pit mining to start) took place from late July to mid September of 2002. The A418 dike was built in 2005 and 2006, and dewatering also took place in 2006. The North Inlet East Dike was constructed in 2001 and 2002, and a raise was added (the dike was made higher to allow more water to be stored in the North Inlet) in 2007. The North Inlet West Dike was constructed in 2007. An annual inspection and performance evaluation is required and is to be done following the break-up of lake ice in July. Below is an outline of some key recommendations and DDMI's response to the 2011 annual inspection report:



Below is an outline of some key recommendations and DDMI's response to the 2011 annual inspection report:

- Carefully inspect the bottom of the dike inside the inlet when the water level is down. This has been done and is now part of regular inspections.
- Monitor the water level and keep it below the 418 m elevation. This has been done and is now part of regular inspections.
- Maintain regular readings of the instruments on the dike. This has been done and is now part of regular inspections.

- Monitor for wave damage on the dike. This has been done and is now part of regular inspections.
- Try to keep the water levels on both sides of the dike at a similar level over winter so that the dike will continue to freeze. This has been done and is now part of regular inspections.
- Continue to inspect the natural ground near the dike to ensure that permafrost does not decline in these areas. This has been done and is now part of regular inspections.
- Consider adding more thermosyphons (cooling instruments) in the northern part of the dike. This will be looked at in 2012.
- Reslope the sides of the dike to help identify any deformations that may occur. This will be done in 2012.
- Create a catalog of visual observations with descriptions and photos to monitor change. Improvement to the DDMI Visual Inspection Record is planned for 2012.

5. Facility Operation Plans

Key facilities that are used to manage water storage or treatment require the submission of operations plans or manuals to the WLWB for review and approval.

5.1 Processed Kimberlite Containment Facility Operations Plan, v2

In January 2011, Diavik submitted its facility operations plan for the Processed Kimberlite Containment (PKC) facility to the WLWB for approval. This plan was conditionally approved by the WLWB in April 2011 and Diavik will be submitting a revised plan in July 2012.

The purpose of this plan is to outline water and solids management within the PKC facility and includes information on:

- PKC design and dam construction;
- PKC operations, including solids and water management;
- PKC monitoring programs; and,
- Characterization programs for water, ice and solids stored within the PKC.

The plan also outlines contingency and mitigation measures for the facility to allow Diavik to respond appropriately in the event of an unplanned issue.

5.2 North Inlet Water Treatment Plant (NIWTP) Operation Manual, v1

In October 2010, Diavik submitted its operation manual for the NIWTP to the WLWB for approval. This plan has been approved by the WLWB.

Diavik treats water from the mine in the North Inlet Water Treatment Plant (NIWTP) before it is discharged to Lac de Gras. The underground mine at Diavik means that more water will need to be treated than before; the increased amount resulted in an expansion to the NIWTP to increase the amount of water it can treat.

The plan outlines background information about the plant (area layout, design parameters, etc.), operational requirements of the plant (as it relates to both site water management and water management within the plant) and plant maintenance requirements.

5.3 STP Facility Operations Plan, v3

In March 2011, Diavik submitted the facility operations plan for the Sewage Treatment Plant (STP) to the WLWB for approval. This report was approved by the WLWB in June 2011.

The STP Operations Plan is intended to be a guide for operators of the plant and outlines the design and layout, operating guidelines and requirements, performance monitoring techniques and requirements, contingency planning, preventative maintenance and closure of the plant.

Summary of 2011 Operations

There were a number of construction projects ongoing in 2011 as Diavik completed open pit mining of A154 pit (north and south kimberlite pipes), continued open pit mining in A418 pit and began underground mining operations underneath both pits. A summary of operations and construction projects initiated, completed or ongoing in 2011 is provided in this section; activities that will be carried forward into 2012 have been identified.

Construction projects included:

- Underground Mine Dry, Fresh Air Raise and Facilities (e.g. maintenance shop) – these are all in support of the underground mine. Many projects have been completed for underground, but development work will continue as the underground workings extend further down;
- Crusher and Backfill Plant – construction is done and both plants have started to operate; and,
- Incinerators – new incinerators are being installed at the Waste Transfer Area to burn food waste generated on site. Construction on this project will continue in 2012.

JANUARY

During the month of January, all required SNP stations were sampled by DDMI with no significant issues. Diavik changed the lab that it uses to test the water samples to Maxxam Analytics (previously ALS). Maxxam is able to provide lower detection limits for most elements.

The Tibbitt to Contwoyto Winter Road opened to commercial traffic on January 28, 2011.

FEBRUARY:

During the month of February, all required SNP stations were sampled by DDMI with no significant issues. Toxicity samples for the month froze both times during two attempts at shipping so no results were obtained.

MARCH:

During the month of March, all required SNP stations were sampled by DDMI with no significant issues. No concerns were identified with the quarterly toxicity results at both stations. Station 1645-50 (A418 pit water) was not sampled in March. The sump was frozen during three attempts to collect a sample by DDMI Environment. Collection ponds were dry and/or frozen in March, and therefore not sampled.

The annual winter road resupply to Diavik was completed on March 28, 2011.

APRIL:

During the month of April, all required SNP stations were sampled by DDMI with no notable issues. Station 1645-50 (A418 pit water) was not sampled in April. During the first attempt to collect a sample scheduled for April 13th the sump was frozen. The sample scheduled for April 27th was not collected as the pit sump was not safely accessible. Collection ponds, seepage and groundwater stations remained frozen in April.

The first round of sampling for the 2010 AEMP (ice covered) was completed in April.

The wolverine track surveys and DNA program were done in April.

Annual snow core surveys were done in April.

Exploration programs that included work in the A418 pit, on Lac de Gras and in other areas around the mine were done in April.

The Tibbitt to Contwoyto Winter Road officially closed to commercial traffic on April 1, 2011.

MAY:

During the month of May, all required SNP stations were sampled by DDMI with no notable issues. Station 1645-18B was not sampled during two scheduled dates (May 6th and May 12th) due to no flow through the NIWTP at this station. Sampling at station 1645-19 at the NIWTP diffusers was not completed in May due to unsafe ice conditions. Pond, seepage station and groundwater well sampling locations were still all frozen or dry in May.

Seepage and groundwater stations were checked on three occasions in May. All stations were dry, frozen and/or covered with water or snow, and therefore not sampled.

JUNE:

During the month of June, all required SNP stations were sampled by DDMI with no notable issues. Sampling at station 1645-19 at the NIWTP diffusers was not completed in June due to unsafe ice conditions. Collection Ponds and seepage areas thawed in June and were checked and/or sampled for the first time in 2010.

Collection ponds were sampled on June 24th. Stations 1645-42 and 1645-45 were dry and therefore not sampled in June. Seepage and groundwater stations were checked on five occasions in June. All stations were dry, frozen or not accessible due to bears in the area, and therefore not sampled with the exception of station 1645-24, sampled on June 2nd.

Quarterly toxicity testing was completed with no notable issues.

JULY:

During the month of July, all required SNP stations were sampled by DDMI with no significant issues.

The first open-water session of the 2010 AEMP was completed in July.

AUGUST:

During the month of August, all required SNP stations were sampled by DDMI with no significant issues. Annual sediment sampling at 1645-19 was also completed in August.

The second open-water session of the 2010 AEMP was completed in August.

SEPTEMBER:

During the month of September, all required SNP stations were sampled by DDMI with no notable issues. Quarterly toxicity testing was completed with no notable issues. The third and final open-water session of the 2010 AEMP was completed in September.

Caribou surveys (activity budgets) for the southern migration began in September.

OCTOBER:

During the month of October, all required SNP stations were sampled by DDMI with no notable issues. Seepage and groundwater stations were checked twice in the month of October and were confirmed frozen October 15th. Only station 1645-23 was sampled on October. 9th. All other stations were dry and therefore not sampled.

Caribou surveys (activity budgets) for the southern migration continued in October.

NOVEMBER:

During the month of November, all required SNP stations were sampled by DDMI with no significant issues. Sampling at station 1645-19 at the NIWTP diffusers was not completed in November due to unsafe ice conditions. Collection ponds were dry and/or frozen in November, and therefore not sampled.

Lac de Gras froze in November. The main body of the lake was completely frozen ("freeze up") by 7 November 2011.

DECEMBER:

During the month of December, all required SNP stations were sampled by DDMI with no significant issues. Annual sampling of the sewage treatment plant effluent (1645-11) was completed on December 19th. Quarterly toxicity samples from stations 1645-18 and 1645-18B were collected in December and no concerns were identified with the testing completed.

2011 Camp Numbers:

Main Camp Average Population: 335
South Camp Average Population: 294
Total Average Camp Population: 630

Pit Bottom Elevations on December 31, 2011:

A154: 121m
A418: 210m

**The Lac de Gras water surface elevation is approximately 415.5 m

Underground Development in 2011:

The total underground development for 2011 was 4,861 m, which included 3,046 m of waste rock development and 1,815 m of ore development.

6. Public Concerns

In 2011, there was no direct communication or letters sent from the public to Diavik expressing concerns with the mine's operation. Below is a summary of questions, issues and concerns that came from the Environmental Monitoring Advisory Board (EMAB) in 2011 and the responses that Diavik provided to the issues. A list of community visits, and concerns raised during community updates are provided following the section on EMAB correspondence.



Diavik also corresponds with EMAB through correspondence with the WLWB and the AANDC Inspector. Monitoring reports, review comments/responses, WLWB decisions, inspection reports, and other documents are regularly distributed, presented and discussed amongst Diavik, EMAB, AANDC and the WLWB. A discussion of these items is beyond the scope of this report, however, these documents are available to the public and are regularly posted on the WLWB registry.

6.1 Diavik and EMAB Correspondence

January:

Communication 1: EMAB issued a letter to discuss the budget process between DDMI and EMAB, in consideration of timing for payment and determination of unexpended funds.

Diavik Response 1: This issue was resolved through the development of EMAB-DDMI Business Rules, as recommended by AANDC. Draft rules were circulated for review during 2011, with final agreement and sign off in early 2012.

Communication 2: EMAB wrote to Diavik requesting further clarification on EMAB's recommendations relating to DDMI's approach to incorporate Traditional Knowledge into environmental monitoring.

Diavik Response 2: Diavik conducted a desktop literature review study to find examples of where TK and community input have been successfully included in environmental monitoring and closure planning; this report was provided to EMAB. Diavik communicated to EMAB their intent to develop a TK program for the AEMP with each of the 5 PA communities for 2012, and have supported EMAB's efforts to establish a TK Panel, as per the Environmental Agreement.

Communication 3: Diavik submitted the report from the re-vegetation study conducted at the mine from 2004-2009 for review by all parties.

Communication 4: Diavik responded to EMAB's recommendations relating to the Environmental Agreement Annual Report (EAAR) from 2010. A follow up letter to communities was issued in an effort to obtain feedback on the suitability of the EAAR.

Communication 5: EMAB wrote to Diavik to notify that the expected value of \$70,000 for unexpended funds from the 2009-2011 budget was not accurate and that unexpended funds were expected to be completely used by year end.

May:

Communication 1: EMAB submitted a letter to Diavik recommending that the grizzly bear hair snagging pilot program continue for 2011 and that monitoring would address a ZOI.

Diavik Response 1: Diavik noted that the pilot program would not continue in 2011, due to coordination challenges that prevented meaningful data collection over a large area. However, in a partnership approach, BHP-Billiton would trial methods of hair snagging during 2011. Diavik worked to relay concerns with continuing to monitor for a grizzly bear ZOI, preferring a regional approach and revised monitoring objectives. Considerable work was done during 2011 to collaboratively develop a suitable monitoring program.

June:

Communication 1: EMAB wrote to Diavik with a request to carry forward \$49,000 in unexpended funds from the 2009-2011 budget to support TK/IQ programs and the science program.

Diavik Response 1: Diavik responded to EMAB that the request to carry forward the above-noted funds was not supported by Diavik, as sufficient funds had already been assigned to these areas for the upcoming budget year.

July:

Communication 1: EMAB submitted a review of Diavik's 2010 Wildlife Monitoring Program and 3-year statistical analysis, with a request for a response from Diavik.

Diavik Response 1: Diavik met with EMAB and their consultants to discuss the review and then provided a response.

Communication 2: Diavik wrote EMAB to clarify how budget funds could be re-allocated during any given year, that being from one budgeted activity to another.

August:

Communication 1: EMAB wrote to DDMI to request a meeting to discuss the development of business rules for the budgeting process, as recommended by AANDC.

Diavik Response 1: Diavik provided a copy of proposed draft business rules for EMAB review and input. These were finalized in early 2012.

October:

Communication 1: DDMI wrote to EMAB to inform them of the upcoming wind turbine project planned for the Diavik site.

Communication 2: DDMI wrote to EMAB to request a value of \$45,161 that EMAB reported as not spent during the 2009-2011 budget period. EMAB returned this money to Diavik.

6.2 Community Updates

In early 2011 and 2012, Diavik visited communities to discuss the various environmental monitoring programs ongoing at Diavik. Diavik originally tried to meet with communities in the fall of 2011, but were unsuccessful in finding dates that worked for each party. Meetings were arranged through the Tlicho Government, Kitikmeot Inuit Association (KIA), Yellowknives Dene First Nation (YKDFN), Lutsel K'e Dene First Nation (LKDFN) and the North Slave Metis Alliance (NSMA).

Topics covered at the community meetings included: employment & training, business, operations update (including the wind turbine project), changes to the wildlife monitoring programs and progress on the AEMP. Additionally, Diavik had a recruitment drive in each community and visited the schools to discuss geology, budgeting, apprenticeships and the benefits of staying in school.

Below is a summary of community visits and any relevant concerns that were discussed.

Lutsel K'e Dene First Nation, 11 January 2011

There was a question relating to caribou aerial surveys where the person felt that surveys were good to do but worried about helicopter disturbance to the animals. The question was how high off the ground the helicopter flew and if the surveys could be done in a different way. Diavik responded that surveys are done from about 500 feet above ground and that, while there are options on what kind of aircraft are used, Diavik safety policies prevent the use of small (single-engine) aircraft. Another question was raised on how the SNP and AEMP programs were linked. DDMI responded that the SNP program looks at on-site control points, with the two key sample locations of the treated effluent coming from the water treatment plant and the lake sample locations at the end of the diffuser where the effluent is put back in to the lake; it is that spot where the SNP starts to link to the AEMP, which then looks at lake effects from the treated effluent additions. Another question was asked about how frequently the treated effluent is sampled. DDMI responded that it is sampled every 6 days, at a minimum. General concerns were raised that community members want to be

involved in closure planning, especially as it relates to wildlife. Lastly, concern over dust levels and their effect on caribou were stated. One person wanted to know what the results for the lichen study were and the DDMI representative explained that the results hadn't been received yet as the lab was still processing the samples. Additionally, a number of Elders spoke to their desire to see Traditional Knowledge included in the monitoring programs.

There were some additional questions on employment and training opportunities.

Behchoko, 1 March 2012

Questions largely were focussed on jobs and how to work better with people from the community in relation to hiring people without grade 12, or those with lower grades. It was specifically stated that the job advertisements may need to be re-worded so that they are better understood by those in the communities. Training and advancement (specifically of Aboriginal employees) was also discussed. Clarification was asked on what happens to people if they miss their plane to site. People were also interested in the underground mine development but expressed some concerns relating to safety of working underground and how much longer the mine will be operating. The new Diavik Community Liaison position was well received.

Whati, 29 February 2012

There were only a few questions asked at this meeting. Attendees wanted to know more about the caribou monitoring programs done during the migration. They also wanted to know more about the content of the leadership program that Diavik was doing and whether or not Diavik tried to hire summer students to work in the Environment department. Answers were provided for all questions.

Gameti, 28 February 2012

The new Diavik Community Liaison position was well received. A question was asked about where BHP's EKATI mine was in relation to Diavik, in consideration of effects from both mines. The attendees were shown on a map.

Wekweeti, 27 February 2012

Participants asked how long the mine has been running and how much longer there is to go. A question was asked on the water quality and how it is monitored. The wind turbines were discussed and people wanted to know when the Tlicho were notified and how much noise they make. The concern would be how caribou respond to the noise from the turbines. People asked how many times wildlife are seen on the island. People also wanted to know if waste rock was used for the m-lakes fish habitat compensation construction. A question was raised about the possibility of another rock pile if the third open pit was to be built. Jobs and training were also a focus: advancement of Tlicho people, number of people working at the mine, etc. People wanted to know how often Diavik visited the communities and that enough money was being spent on environment monitoring. People wanted to know if air filters were used on the power plants and if there was still mining in the open pits.

Kugluktuk, 6 February 2012

A question was asked as to what the hiring targets are for Diavik and how many people were working at the mine right now. The trades training program was of interest; what are the opportunities and how does someone apply. Attendees were interested in apprenticeship roles and want to have good representation of communities working at the mine. A question was also asked on the process for support for community improvements like infrastructure.

Yellowknives Dene First Nation (Dettah), 31 January 2012

One person felt that Aboriginal employment numbers should be separated out by category (Metis, First Nations and Inuit). Elders noted that they were not happy with the low turnout of YKDFN people to the meeting. Some concerns were raised on the remaining life of the mine and concerns around safety relating to the recent plane crashes in the north. There was a concern expressed relating to the low number of trappers remaining and noted that people may want to trap in the Diavik area. One person identified a concern with the ice road due to the number of vehicles travelling the road and the risk of them going through the ice and polluting the water. There was also a question why the Diavik update was rotated between Dettah and N'dilo each year, as it may be better to visit both each year.

Lutsel K'e Dene First Nation, 2 February 2012

There was a question as to how many years were left for the mine before it closed. One elder asked what the site would look like at closure and if it would be exactly as it was before. The biggest concern was to prevent impacts to hunting and fishing practices as those who have used the land in the past would like to continue to use it and protect it for the children. Are people from Lutsel K'e hired to work in the Environment department each year and that there is interest in the results from the grizzly bear DNA monitoring program once it gets started.

North Slave Metis Alliance, 30 January 2012

NSMA members noted that they are interested in having more business MOU's in place with Diavik for some services and asked for clarity as to whether some contracts were embedded in PA's. A question was asked about the effects of nitrogen in the water and whether it is good or bad for fish, as well as who collects data on the fish and what do they look for. Questions relating to the wind turbines focused on what was done to gather data and how much noise they could make in relation to possible impacts to caribou. The depth of the m-lakes fish habitat restoration work was asked as people wanted to know if it would allow for fish transfer.

6.3 2010 Environmental Agreement Annual Report

DDMI submitted a draft of the 2010 Environmental Agreement Annual Report to EMAB and AANDC on 3 May 2011 for review and comment. Comments on the draft were received from EMAB on 24 May 2011 and from AANDC on 17 May 2011. The final report, with translations, was submitted to the parties of the Agreement on 27 June 2011.

The Environmental Agreement states that the Minister has 90 days to comment on whether the report is satisfactory or not. A response from the Minister confirming the report to be satisfactory was received on 29 September 2011.

Advanced Technology

During 2011, Diavik continued investigations into the technologies discussed below.

Wind Energy

In 2004, Diavik had started looking at whether wind could be used as a source of energy at the Lac de Gras mine site. Wind experts put up a wind tower in 2007 to gather information to see if wind power generation is possible as a source of energy to offset the amount of diesel required for power at the mine site. The required weather information was collected and it proved that it would be possible to set up four (4) wind turbines at the mine site. In order to prepare for the possibility of such a project, Diavik hired an archaeologist and community assistant to look at possible areas where wind turbines could be installed and a preliminary archaeological assessment was conducted in these areas in September 2010.

A project plan was developed and Northern and Aboriginal construction contractors were invited to submit their interest in bidding on the possible development of a small-scale wind farm at the mine site in 2011. Diavik received funding to look more closely at the possibility of installing wind turbines and finalize how many would be installed and what the timing would be. A letter was sent out to community Chiefs and the distribution list that the WLWB uses for Diavik review items to notify everyone of the wind turbine project. The WLWB staff and Board members were shown the area and the project was explained to them during a site visit in August 2011. The project was also explained during Diavik's annual updates in the communities.

This is a unique project for the north, at a remote site, so there are still many technical challenges for the project. The towers were brought to site over the 2012 winter road and construction of the wind farm would be scheduled to start in spring of 2012.

Waste Disposal

Diavik had previously investigated new types of incinerators to burn waste at the mine site. The new incinerators have a scrubber built into them, and scrubbers help to remove harmful substances such as dioxins, furans and mercury from the emissions that the incinerator gives off. These incinerators were researched in 2006, and ordered in early 2007. In 2008, a new waste management facility was completed at the mine site that will house these new units. The engineering designs were completed, foundation excavated and contract set up during 2010. Installation began in 2011 and is expected to finish in 2012.

A21 Kimberlite Pipe

While A21 is not currently considered in the mine plan, Diavik continues to look at options to possibly mine the A21 kimberlite pipe beneath Lac de Gras. More information on the progress with A21 can be expected in 2012.

Summary of Compliance – 2011

The AANDC Inspector visited the mine site seven times during 2011 and only one action item was noted for Diavik as a result of these visits. During the April visit, the Inspector requested that water quality data for the seepage water at 1645-24 be provided, and an analysis conducted to confirm that the water quality profile does not match that of the PKC water. This was completed and showed that the water quality profiles did not match, meaning the seepage water was coming from somewhere other than the PKC.

In 2011, there were no incidents resulting in non-compliance with our Water Licence at Diavik. Overall, Diavik was in compliance with the Land Leases and the Water Licence.

Appendix A – Monitoring Programs and Adaptive Management Summary Tables

Table A1: Environmental Monitoring Programs 2011

Program	Purpose of the Monitoring	Key 2011 Activities	Key Results
Air Quality Monitoring (Dust & Emissions)	Determine if environmental assessment (EA) predictions were accurate. To inform management when dust levels require management response. Track emissions based on fuel use.	<ul style="list-style-type: none"> • Ongoing notification to Operations for dust suppression. The Dust Monitoring Program continued in 2011 with summer / winter dust sampling, in order to determine the extent of dust dispersion related to operational activities. Results are analyzed in the Annual Dust Report and utilized in the AEMP and Wildlife Monitoring Program. Work to update the dispersion model continued in 2011. Emissions tracking was conducted through the on-site Delta V system. 	<ul style="list-style-type: none"> • Dust suppression using water is effective for reducing dust during non-freezing periods, however, this increases Diavik's fresh water demand from Lac de Gras • Dust deposition rates are higher close to mine activities and were higher than EA predictions for 2011, but decreased from previous years. - All snow samples showed snow water quality to be below the limits required under the water license. - Emission levels for 2011 remained similar to 2010 values.
Meteorological Monitoring (Weather)	Track temperature, wind, rain and snow fall, humidity, etc. to help inform other monitoring program results with local data.	Measured: wind speed and direction, temperature, relative humidity, precipitation (rain and snow), incoming solar radiation and evaporation	<ul style="list-style-type: none"> • Annual average temperature was -8.1°C. • Relative humidity averaged 77% • Prevailing winds are mostly from the northeast • Total annual precipitation was 305.5 mm
Quantity (Amount of Water)	Measure limits, sources and purpose of water consumption as established in water license.	<ul style="list-style-type: none"> • PKC facility levels are monitored. All make-up water is measured. • Allowed amount of fresh water under water license returned to original value after the 2008/2009 approved temporary increase. • Completed an updated mine site water balance. - Use of the north inlet to process plant pipeline reduced fresh water intake requirements significantly. 	<ul style="list-style-type: none"> • Freshwater obtained from Lac de Gras for domestic water use for the accommodations complexes, south construction camps, maintenance shops, process plant, dust control around the site and other associated infrastructure totaled 638,465 m³ in 2011. This was within the allowed volume from the Water License (1,280,000 m³).
Water Quality Compliance (Mine Site Water Quality)	Monitor effluent limits as required by the water license.	<ul style="list-style-type: none"> • Collected and analyzed samples in compliance with the water license at required SNP locations in 2011. - Seepage issues from collection ponds and the PKC were addressed using various solutions (pumps, liner repairs, diversion ditches, etc.) 	<ul style="list-style-type: none"> • Results of monitoring are consistent and compliant with water license requirements. - Five seepage events reached Lac de Gras in 2011 - water quality of this water closely met with water license requirements, with the exception of a few elements noted in Section 1.5 of this report.
Aquatic Effects (Lake Water Quality & Fish Health)	Collection of information to determine the short and long-term effects in the aquatic environment resulting from the project. Provides triggers to determine where further investigation may be warranted.	<ul style="list-style-type: none"> • Samples collected 4 times at AEMP sites for water quality, phytoplankton biomass, zooplankton biomass & species identification, benthic invertebrate biomass & species identification 	<ul style="list-style-type: none"> • AEMP results are generally consistent with predictions. Nutrient enrichment has been measured in Lac de Gras. - Mercury levels in trout were similar to those found in Lac de Gras in 2008, and had increased since 2008 in Lac du Sauvage.
Wildlife	Determine if predictions in the environmental assessment are accurate.	<ul style="list-style-type: none"> • Caribou monitoring for behaviour, raptor and waterfowl monitoring at the mine site, wolverine DNA research program and track survey, incidental sightings reports, deterrent and herding events. 	<ul style="list-style-type: none"> • All animals listed are still present and using habitat in the area of the mine.
Wildlife Habitat (Plants)	Determine if environmental assessment predictions (linked to wildlife program) are accurate. Determine extent of loss of vegetation/habitat.	<ul style="list-style-type: none"> • Surveyed extent of the mine footprint related to type and amount of vegetation lost 	<ul style="list-style-type: none"> • No further vegetation/habitat loss in 2011, total lost to date remains at 9.71 km²
Fish	Fisheries authorization requirement. Establish additional baseline information. Initiate long-term monitoring programs and identify control sites.	<ul style="list-style-type: none"> • DDMI continues to monitor the health of Lac de Gras fish and has fulfilled various requirements related to its Fisheries authorizations (e.g.—Shoal Habitat studies, Blasting Effects studies) 	<ul style="list-style-type: none"> • DDMI was compliant with its Fisheries Authorizations in 2011

Table A2: Adaptive Environmental Management

Aspect	Performance/Compliance Expected	Adaptive Management	Mitigation Measures	Current Effectiveness of Measures Taken
Waste	<p>Minimal waste management issues.</p> <p>Maintained dump site for inert waste materials.</p>	<p>All domestic and office wastes are incinerated at the waste transfer area</p> <p>Continued the use of clear plastic bags in all areas of domestic and office space</p> <p>New WTA facility incorporated access road around the facility to allow equipment access and snow removal during winter to reduce opportunities for animals to climb over the fence; fencing angled and extended further in to ground to prevent access to burrowing animals; extensions placed on gate in an effort to prevent animal access; improved sump facilities for contaminated soil containment area.</p>	<p>All employees and contractors are provided orientation on proper waste management. Color-coded collection bins and posters for non-food waste around site.</p> <p>DDMI Environment Staff conduct regular toolbox meeting discussions regarding waste management.</p> <p>Regular waste inspections are conducted by Environment Staff at the Waste Transfer Area and Landfill. A site-wide compliance inspection is completed weekly.</p> <p>Site Services implemented clear plastic bags in all domestic and office areas to allow staff to empty contents prior to disposal</p> <p>Surface Operations staff collecting waste bins inspect bins prior to pick-up and notify Environment department to arrange for sorting.</p> <p>Installation of new incinerators began in 2010. Incinerators will be housed and will reduce attractant potential and reward opportunities for wildlife.</p> <p>Gate installed at inert solid waste facility to limit access to dump area.</p>	<p>During Inspector's visits in 2011, no concerns were raised regarding food waste, or the landfill.</p> <p>Improper disposal of waste is identified during DDMI waste inspections (including food waste) despite training and awareness sessions with site staff, but an overall improvement has been noted over the years.</p>
Water	<p>All effluent is treated before being discharged to Lac de Gras, or is recycled.</p> <p>Ammonia levels within water license limits.</p> <p>Prevent seepage water entering Lac de Gras and seepage water quality to be within license limits.</p> <p>Decrease freshwater use.</p> <p>Have fish and water quality that are safe for use.</p>	<p>Review loading and blasting procedures for opportunities to reduce ammonia levels in pit and underground water.</p> <p>Evaluate opportunities to re-use north inlet water as supply water to facilities at the mine site.</p> <p>Diavik has evaluated the use of treated effluent for dust suppression.</p> <p>Diavik conducted a study with the University of Alberta to evaluate the biological removal of ammonia and other nitrogen compounds in the North Inlet</p> <p>Special Effects Studies (SES) are completed when unexpected effects are measured during the AEMP</p> <p>Evaluate seepage prevention or interception methods upstream or downstream of areas of concern.</p> <p>Investigate, assess and repair site infrastructure where seepage issues arise, where possible.</p>	<p>The North Inlet provides retention time for mine water before treatment, allowing for ammonia reduction by natural attenuation.</p> <p>Influent and effluent in the NIWTP is monitored consistently for parameters that are indicators of water treatment effectiveness.</p> <p>Daily sampling of pit water, underground water and effluent identifies trends early, before ammonia would become a compliance issue.</p> <p>Diavik has an Ammonia Management Plan that is followed to minimize ammonia loss. This includes use of blast hole liners to reduce ammonia dissolution in water. It also includes limiting holding times for loaded blast hole patterns to 4 days for wet holes and 2 days for sump blasts.</p> <p>Batch and paste plants utilizes treated effluent as a water source instead of fresh water.</p> <p>North Inlet to Process Plant pipeline completed during 2010 to recycle water from the North Inlet (prior to treatment) for use in the Process Plant to reduce freshwater intake volumes.</p> <p>Seepage interception access road and sumps installed downstream of seepage areas.</p> <p>Repairs to damaged infrastructure to prevent future seepage.</p> <p>Source water (North Inlet, Collection Ponds, PKC) chemistry around site are monitored as part of the SNP.</p> <p>On-going SES to determine mercury concentration/availability in fish and sediments within Lac de Gras.</p>	<p>Ammonia levels in 2011 were well below the license limit of 12 mg/L.</p> <p>Ammonia levels in mine water and effluent continue to decrease with time.</p> <p>Parameters regulated in the Water License in NIWTP effluent remain well below discharge criteria.</p> <p>Five seepage events occurred in 2011, but were responded to in a timely manner to reduce flow to Lac de Gras. These events were not associated with the PKC.</p> <p>Mercury levels in lake trout were found to be similar to previous years in Lac de Gras, but increased in Lac du Sauvage which is upstream of the mine. Mercury levels in small fish (slimy sculpin) were found to be elevated one year, but not another year; the reason for this is unknown. Mercury levels in mine effluent have been tested and were not high.</p>
Hazardous Materials	<p>No significant spills or non-compliance issues.</p>	<p>All reported spills are investigated and tapcoats are conducted on external spills.</p> <p>A new electronic system for MSDS tracking for chemicals onsite has been implemented.</p> <p>New products being brought to site are reviewed by Health, Safety and Environment personnel</p> <p>Alternative biodegradable products are encouraged.</p>	<p>Orientation and specific training for employees and contractors is provided for storing and handling of hazardous materials</p> <p>Regular waste inspections are conducted by Environment Staff at the Waste Transfer Area and Landfill. A site-wide compliance inspection is completed weekly.</p> <p>Hazardous materials are backhauled each year on the winter road. Prior to backhaul, hazardous materials are stored and inventoried at the Waste Transfer Area (a contained lined facility)</p> <p>All employees and contractors take WHMIS training</p> <p>NIWTP expansion provided improved containment for sulphuric acid storage on-site.</p> <p>Equipment identified as having issues relating to frequency/volume of spills can be taken out of service for repairs, as required.</p> <p>Vehicle inspection and storage procedures improved in an effort to reduce spills.</p>	<p>Spills are reported, recorded and quickly and effectively cleaned up. Follow up actions resulting from external spills are documented and reported to the Inspector.</p> <p>No significant hazardous materials compliance issues were identified in 2011.</p> <p>Spill volumes and frequency from problem equipment decreased during 2011.</p>
Wildlife	<p>No wildlife-related compliance issues.</p>	<p>Caribou are herded away from the airstrip</p> <p>Bears are deflected away from the mine site</p> <p>Wildlife reporting system is in place site-wide, for wildlife observations</p> <p>Wildlife monitoring programs are adjusted based on results of previous years of studies</p> <p>Review of wildlife monitoring programs being conducted with all 3 mines, industry, Monitoring agencies, government and communities.</p>	<p>Orientation and environmental awareness training related to wildlife on site is provided to all employees.</p> <p>Caribou advisory updated as necessary</p> <p>Waste inspections conducted regularly</p> <p>Waste management system in place</p> <p>Study area expanded for caribou based on potentially larger mine zone of influence than predicted.</p> <p>Participation in a regional wolverine DNA study with BHP-Billiton and assistance from the GSWT to contribute data to gain further insight on the wolverine population in the Lac de Gras region and around the mine site.</p> <p>Monitoring methods for grizzly bear being reviewed to consider a more regional objective, while being safer for field crews.</p> <p>Pit wall surveys for raptors that may nest in the pit or on other infrastructure was formally added to the raptor monitoring program.</p>	<p>There were no mine-related wildlife incidents or mortalities in 2011.</p>
Dust	<p>Isolated higher deposition levels due to construction activities (dust deposition is expected to decrease as construction activities at Diavik decrease and the mine switches from open pit to underground operations).</p>	<p>Evaluate dust control measures used to minimize dust released from construction and operations</p> <p>Evaluate the use of treated mine effluent for dust suppression, which would reduce fresh water use from Lac de Gras</p> <p>Assess vegetation and dust sample locations to provide better coverage of the area for improved data collection</p>	<p>Dust suppression using water during non-freezing periods, on haul roads and the airstrip.</p> <p>New crusher commissioned in 2009 is contained inside a building and has an advanced dust control and collection system.</p> <p>Dust suppressant used on the apron, taxiway and helipad (approved by both the Lands Inspector and Transport Canada)</p> <p>Addition of vegetation monitoring stations to improve ability to detect potential changes to cover or composition</p> <p>Modified lichen monitoring program to obtain more samples from further distances & link metal levels to caribou exposure</p> <p>Use of blast mats to control dust in smaller-scale blasts</p>	<p>Control of dust from crusher, small blast areas and roads.</p> <p>Dust suppressant continued to be used on the airport's taxiway, apron and helipad in 2011.</p>
Greenhouse Gas Emissions	<p>Measure consumption of applicable sources of GHGs - primarily diesel combustion</p> <p>Meet Internal GHG Reduction Targets</p> <p>Report GHG Emissions to regulatory agencies and within Rio Tinto.</p>	<p>Evaluate new technologies and equipment that may allow for pollution controls/ reduced emissions.</p> <p>Wind power generation research</p> <p>Determine energy draws, optimal use and options to reduce power requirements for buildings on site</p> <p>Diavik has various fuel consumption reduction initiatives</p> <p>Created a Principle Advisor, Energy position in 2010 to specifically look at emission reduction opportunities</p>	<p>Use of low sulphur diesel</p> <p>Archaeological assessment for areas where wind turbines could be installed</p> <p>Installation of Delta V fuel consumption monitoring system for all key power consuming buildings on site</p> <p>Boiler optimization program</p> <p>Purchase of 4 wind turbines that are to be integrated into the power distribution system to reduce fuel consumption</p> <p>New waste incinerators (with pollution prevention devices).</p> <p>"Waste" heat from powerhouse generators used to heat facilities connected to powerhouse (camps, maintenance shops, etc.)</p>	<p>DDMI reports GHG emissions annually to appropriate regulators and internally to Rio Tinto.</p> <p>Installation of waste incinerators continued in 2011.</p> <p>Wind turbines purchased in late 2011 and ordered for delivery on 2012 winter road</p>

Appendix B – Rolling Summary of Environmental Effects

This appendix gives a summary of monitoring information and data from each year up to the present. These monitoring points are called measured indicators, which are compared to indicators that were described in the Environmental Assessment. The Environmental Assessment included predicted indicators that would either stay the same over time or would change over time to pre-calculated predicted levels. Where indicator trends are not similar to those predicted, Diavik has provided possible reasons.

For each indicator, Environmental Assessment predictions are provided followed by a discussion of observations. Graphs and figures or tables are given where practical to show the trends over time. Further details can be found in the full reports that Diavik produces for each topic.

Climate and Air Quality

Will the mine development affect air quality around Lac de Gras?

EA Predictions:

- Ambient air quality objectives will not be exceeded; and
- The mine will be a very minor contributor of greenhouse gases.

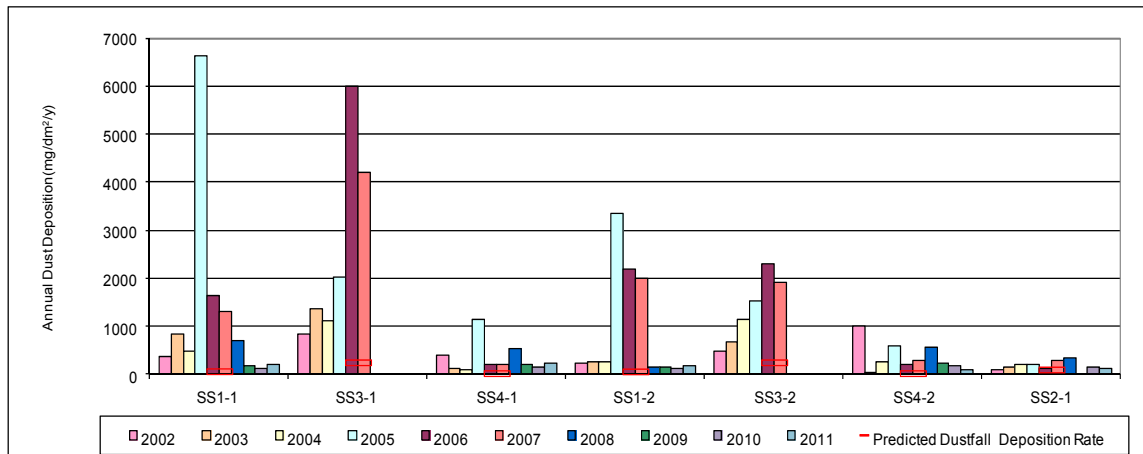
Observations:

As predicted, dust deposition is greatest close to the mine and decreases with distance away from the mine. The rate of dust being deposited is affected by activities at the mine (for example, higher dust deposition is typically measured at the airport compared to the west part of East Island where there is very little activity) as well as by wind direction (because wind carries the dust). These trends have been measured each year since dust monitoring began in 2001.

For the fifth year, overall dust deposition rates observed during 2011 were more than what was predicted by models in the Environmental Effects Report. Snow water chemistry analyses (measurements of chemicals in the water from melted snow) indicate that the concentrations of regulated parameters (the chemicals in the Water License that Diavik must keep below set levels) measured in 2011 were below the maximum allowable concentration outlined in the Water License.

The Environmental Effect predictions were based on normal air quality at that time. It is, however, important to note that the original predictions did not take into account construction activities such as the advanced schedule to build and mine the A418 dike or the type and amount of infrastructure required to support the type of underground development. These activities have been ongoing for the last couple of years (since 2005), but were not calculated in the dust deposition estimates during the EA. It is expected that dust will decrease as construction slows down and as Diavik transitions from an aboveground to an underground mine.

Predicted and calculated annual dust deposition rates at snow survey sampling locations, up to and including 100 m from the project footprint - 2002-2011



Diavik began revisiting air quality modelling (last completed in 1998 as part of the Environmental Assessment) in 2008 to further assess dust deposition and other air quality parameters. During 2011, work was completed on the model with input from Environment Canada and the GNWT. The model and updated predictions on deposition rates was completed in early 2012. A proposed monitoring program will be submitted for review during 2012.

Total greenhouse gas emissions for Diavik in 2011 were 199,000 tonnes of CO₂ e. “CO₂ e” is an abbreviation of ‘carbon dioxide (CO₂) equivalent’. CO₂ is a greenhouse gas, but there are many more greenhouse gases. To make it easier to understand greenhouse gases, a standardized method is to report all of the greenhouse gases from a site together as if they were equal to a set volume of CO₂; this is the CO₂ e referred to above.

Vegetation and Terrain

How much vegetation/land cover will be directly affected by the mine development?

EA Predictions:

- Approximately 12.67 km² of vegetation/land cover will be lost at full development; and
- Slow recovery of vegetation following mine closure.

Observations:

There was no further direct vegetation/habitat loss in 2011 due to mine development. Total habitat loss to date from mining activities is 9.71 km². This is within the predicted amount of 12.67 km². The map below shows the land disturbed over time on the Diavik mine footprint. The table below shows a running total of the habitat lost to date.

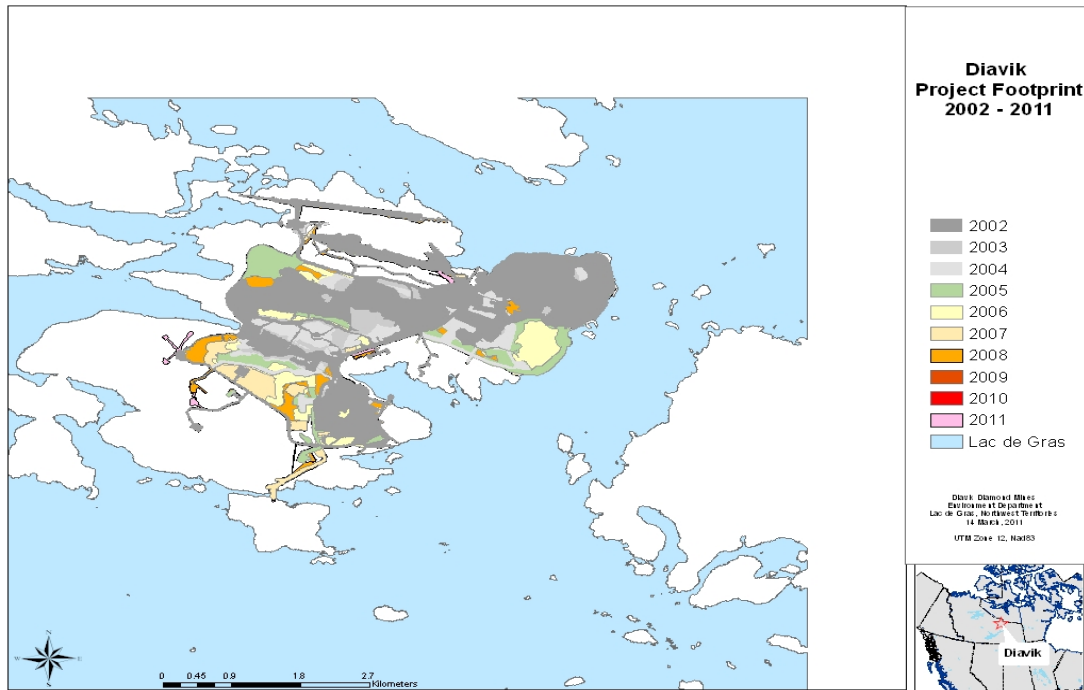


Table 1: Habitat Loss by Year

<i>Predicted Vegetation Habitat Loss (km²)</i>	Up to 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
12.67	3.12	5.88	6.32	7.30	8.15	8.86	9.40	9.66	9.78	9.65	9.71

How will the vegetation communities outside the mine footprint be changed as a result of mine development?

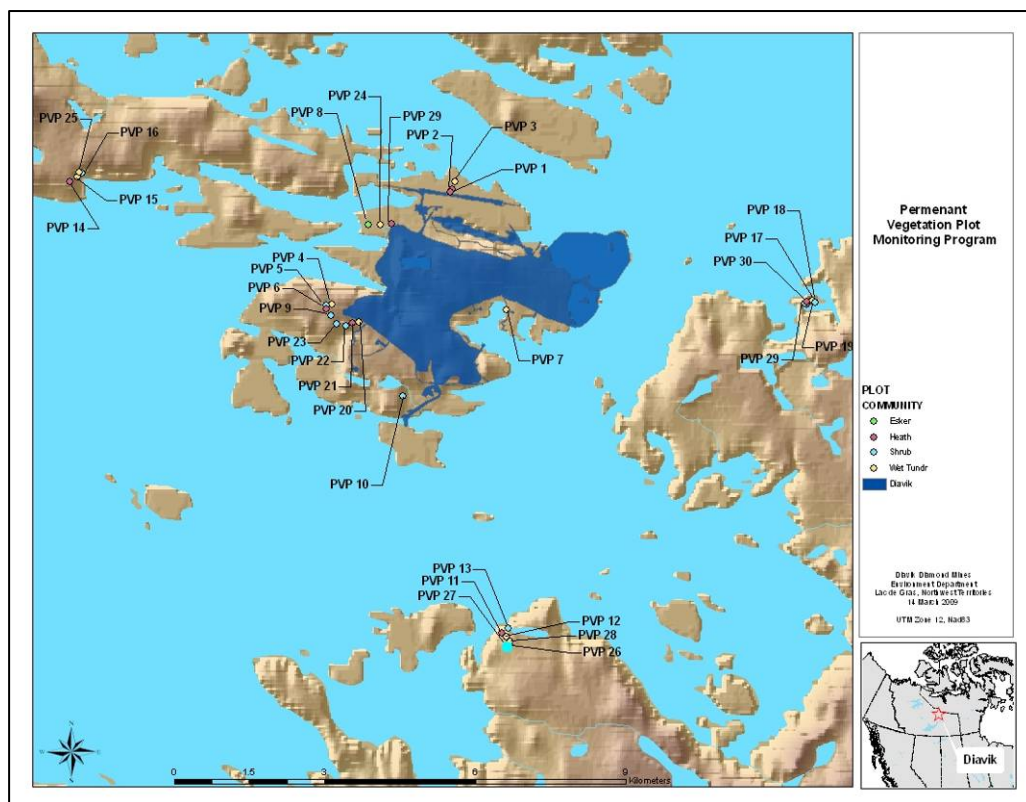
EA Prediction:

- Localized changes in plant community composition adjacent to mine footprint due to dust deposition and changes in drainage conditions.

Observations:

Permanent vegetation plots (PVPs) have been established close to and far from the mine site to monitor if there are differences in vegetation and ground cover near the mine and farther away from the mine. In 2001, ten Permanent Vegetation Plots (PVPs) were established by Diavik for analyzing habitat. In 2004, the University of Alberta assessed the data collection and made recommendations - including monitoring every two years, permanent marking of plots, and adding reference plots and plots in specific vegetation communities to balance the monitoring design. Some plots also had to be relocated from 2004 to 2006 as they were lost to new mine

development. Most of the 2004 recommendations were accepted by Diavik and implemented for the 2006 assessment. After the 2006 sampling session, further recommendations were made to increase the number of plots per vegetation community to reduce within site variability of plant communities (which was high) and increase the likelihood of capturing true change in plant abundance between mine and reference areas over time. For the 2008 assessment, the number of plots per vegetation type was increased from three to five. The PVPs were reassessed in 2008 with no ecologically significant difference in vegetation and ground cover between mine and reference plots for each of the plant communities assessed. Observations of PVPs were done in 2010, but not in 2011 as this program is done every other year. There were more grasses and flowering plants closer to the mine versus further from the mine. There was also lower soil lichen cover and higher litter cover values closer to versus further from the mine. The map below shows the locations of the PVPs.



A study was conducted in 2010 to determine the amount of metals in lichen from dust deposition closer to and further away from the mine. The study also looked at this data to find out how much dust caribou are exposed to (could eat) by eating the lichen with dust on it. With the exception of 4 metals, concentrations of all other parameters were higher close to the mine, as was expected, and the level of exposure to metals was within safe levels. Aluminium levels were slightly high but the assumptions made for the risk assessment were very conservative (meaning that it was assumed that caribou feed in the area of the mine 100% of the time).

Wildlife

Will the distribution or abundance of caribou be affected by the mine development?

EA Predictions:

- At full development, direct summer habitat loss from the project is predicted to be 2.97 habitat units (HUs). (A habitat unit is the product of surface area and suitability of the habitat in that area to supply food for caribou and cover for predators);
- The zone of influence (ZOI) from project-related activities would be within 3 to 7 km;
- During the northern (spring) migration, caribou would be deflected west of East Island and during the southern migration (fall), caribou would move around the east side of Lac de Gras; and
- Project-related mortality is expected to be low.

Observations:

- There was little direct summer habitat loss in 2011 from the mine footprint. The total loss to date is 2.47 HUs (see table below). This is less than the loss that was predicted.

Table 2: Caribou Habitat Loss by Year

<i>Predicted Caribou Habitat Loss (HUs)</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Loss to Date
2.97	0.39	0.59	0.28	0.15	0.32	0.23	0.15	0.18	0.13	0.04	0.00	0.02	2.47

Caribou summer habitat loss was greatest in 2001, when the majority of haul roads and laydown areas for mine infrastructure were constructed. The loss of habitat in 2008 was associated with expansion of mine infrastructure to support underground mine development. Plant loss for the species that caribou use was within the expected (predicted) amount at the end of 2010, as there was little additional development of the mine footprint.

- Golder (2005) completed a comprehensive analysis of the caribou data from 1998 through 2007 within the regional study area for the Diavik and Ekati mines. The results indicated that the estimated ZOI on the probability of caribou occurrence around the Diavik mine ranged from 22 km to 26 km for the northern and southern migration periods. In 2006, Diavik expanded the study area for aerial surveys to assess the possibility of a larger ZOI. A similar analysis was conducted in 2008 to incorporate data from 2005

through 2007. The range identified for an estimated ZOI remained relatively consistent for the Diavik mine.

During 2008 and 2009, additional analysis was done by an external review of the Diavik and EKATI survey data. These results indicated a ZOI that ranged from 11 km to 28 km. Based on feedback received during 2008 and 2009, Diavik revised their aerial survey in 2009 in order to survey a larger, combined footprint in cooperation with BHP-Billiton. These surveys were done weekly from July to October, until caribou were no longer seen in the area. Each line flown during the aerial survey was spaced 8 kilometers apart and covered a distance 30 km away from mine development.

Aerial surveys were suspended in 2010 and 2011. Another analysis was done by Golder (2011) that included data to the end of the 2009 monitoring year. A range of ZOI was found that differs among years and is still higher than the original prediction, but was not related to the level of activity at the mine site. It is not known what kind of influence large lakes like Lac de Gras have on the distribution of caribou.

- Diavik staff also worked with BHP-Billiton in doing caribou behavioural observations, or scans, throughout the summer. BHP-Billiton will focus on scans near to the mine and Diavik will focus on observations further from the mine. The data will be shared among the mines in order to get a better idea of how caribou behave closer to and further from the mines.

During the past five years, Diavik has had limited opportunities to study caribou behaviour on the ground through scanning observations. During 2003, 2004, 2005, 2006 and 2007, ground observations of caribou behaviour were successfully completed for 12, 14, 5, 8 and 24 caribou groups, respectively. During 2008, DDMI was able to successfully complete 7 behavioural observations. All of these observations were completed away from the mine site, as the number of caribou on East Island was low. During 2009, a total of 110 behavioural observations were done, with Diavik conducting 89 of them. A total of 83 scans were done in 2010.

Caribou behavioural observations/scans (ground-based) were conducted a total of 104 times in 2011, covering distances from less than 2 km to greater than 30 km from mine infrastructure. Data have shown that behaviour of caribou without calves appears to be more closely linked to weather and insect activity. Caribou groups with calves tend to increase their time spent feeding/resting as they move further away from the mine.

- Data from satellite-collared animals record cows in the Bathurst herd west of the mine site during the northern migration. Collar maps for the southern migration suggest that cows traveled through the southern portion of the study area during the fall migration period. The distribution of caribou groups observed during aerial surveys also indicated that most groups were recorded south of Lac de Gras. A comprehensive analysis also showed that from 2002 to 2010, with the exception of 2006, the majority of collared caribou traveled adjacent to or through the southeast corner of the study area (Golder, 2011). Data collected for the southern migration appears to agree with the impact

prediction found in the EER (DDMI, 1998), stating that caribou would travel east of the mine site during the southern migration.

- There were no caribou mortalities or injuries caused by mining activities in 2011. There has been only one caribou mortality caused by mining activities (2004) since baseline data began being collected in 1995.
- The level of caribou advisory monitoring remained at “no concern” (no caribou or fewer than 100 caribou) for 344 days in 2011. The sign was changed to ‘caribou advisory’ from 7-27 October 2011 due to a herd of approximately 200 caribou on the southwest side of east island.

For all days in 2008, 2007, 2006, 2005, 2004, and 2003, the sign remained at “no concern”. In 2009 and 2010 it was at “No Concern” for 364 days of the year. On one day in 2009 (29 April) the board was at “Caribou Advisory” due to 150 animals off the south road. “Caribou Advisory” was also posted for one day in 2010 (29 October) when 120 animals were spending time on the south side of the island. The sign was at ‘no concern’ for 362 of 365 days in 2002.

- Caribou road, rock pile and PKC surveys were conducted 59 times during 2011, and caribou were required to be herded away from mine infrastructure three times. Road and rock pile surveys were conducted 54 times during 2010. Caribou were noted 10 times; 2 less than 50 m from the road, 7 between 50 and 200 m from the road and 1 on the road.

Caribou herding was not done in 2010. There were two herding events in 2009 – one for 27 animals near the airstrip with an incoming flight and one for a single caribou walking on the Type I rock pile.

Will the distribution or abundance of grizzly bears be affected by the mine development?

EA Predictions:

- Approximately 8.7 km² of grizzly bear habitat will be lost and there will be some avoidance of the area, but the abundance and distribution of grizzly bears in the regional area will not be affected measurably;
- The maximum zone of influence from mining activities is predicted to be 10 km; and,
- Bear mortalities due to mine related activities are expected to average 0.12 to 0.24 bears per year over the mine life.

Observations:

The table below shows the grizzly bear habitat that has been lost to date (in square kilometers), which falls within what was predicted. Plant loss for the species that grizzly bear use was also within the expected amount at the end of 2011.

Table 3: Grizzly Bear Habitat Loss by Year

<i>Predicted Grizzly Habitat Loss (km²)</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Loss to Date
8.67	1.25	1.62	0.94	0.42	0.93	0.69	0.43	0.50	0.26	0.12	0.00	0.06	7.16

No bears were killed, injured, or relocated during the year. Bears were reported on East Island 56 times in 2011, with one family of 3 bears frequenting the area.

DDMI suspended hair snagging monitoring for grizzly bear presence within the Diavik wildlife study area for 2011 in order to look into a new method for hair collection in 2012.

The calculated mine mortality rate for grizzlies since 2000 is 0.10, which is below the range predicted. One mortality occurred at the mine in 2004.

No grizzly bear injuries, mortalities or relocations occurred during 2010. In 2010, a total of 44 observations of grizzly bears were made on East Island. This may not equal the actual number of bears near the site, as the same bears may be seen many times.

Because of safety concerns for field staff, the grizzly bear monitoring program was cancelled for the 2009 season. During this time, Diavik was looking at different ways to get the same information in a safer way and in 2010, DDMI ran a trial study to review hair snagging techniques using the old habitat plots. A total of 47 hair samples were collected during 2010.

Recent statistical analysis of bear sign data in different types of habitats (Golder, 2008) could not estimate a ZOI for grizzly bears within the study area. Habitat surveys have shown that grizzly bears show a slight avoidance of areas near the mine during operations. There are many things that likely contribute to this type of use, some due to mine operations (e.g. waste management practices) and others to natural events (e.g. caribou distribution).

There were no grizzly bear hair samples collected by Diavik during 2011; BHP-Billiton conducted a pilot program to test post design and lures. The two mines then jointly reviewed the results of both pilot programs in consultation with communities and regulators. A new approach to grizzly bear monitoring was discussed and progress on a change in program design and methods was continuing into 2012. This change would result in Diavik no longer monitoring to prove a Zone of Influence and a request to remove this requirement was put forward to the GNWT-ENR and EMAB.

Will the distribution or abundance of wolverine be affected by the mine development?

EA Predictions:

- The mine is not predicted to cause a measurable shift in the presence of wolverines in the study area; and

- Mining related mortalities, if they occur, are not expected to alter wolverine population parameters in the Lac de Gras area.

Observations:

Wolverine presence around the Diavik Diamond Mine is monitored in three ways: snow track surveys, incidental observations at site, and sightings during caribou aerial surveys. The snow track surveys began in 2003, and have been conducted with the assistance of community members from Kugluktuk, as available. In 2008, Diavik revised the wolverine track survey in favour of an increased number of transects (4 km straight lines that are followed by personnel in the field while they are looking for wolverine tracks) of standard length compared to the surveys completed in previous years. Transects are randomly distributed throughout the study area, but some bias is placed on tundra areas identified as preferred habitat for wolverine based on Traditional Knowledge. The use of transects of standard length allows more accurate analyses of data and aligns Diavik's monitoring program with those of the other diamond mines.

Diavik records all sightings of wolverines on East Island and summarizes observations of wolverines made during caribou aerial surveys, when conducted.

Wolverines were present on East Island in 2011 and were seen on East Island 4 times. There were no mine-related wolverine deaths in 2011.

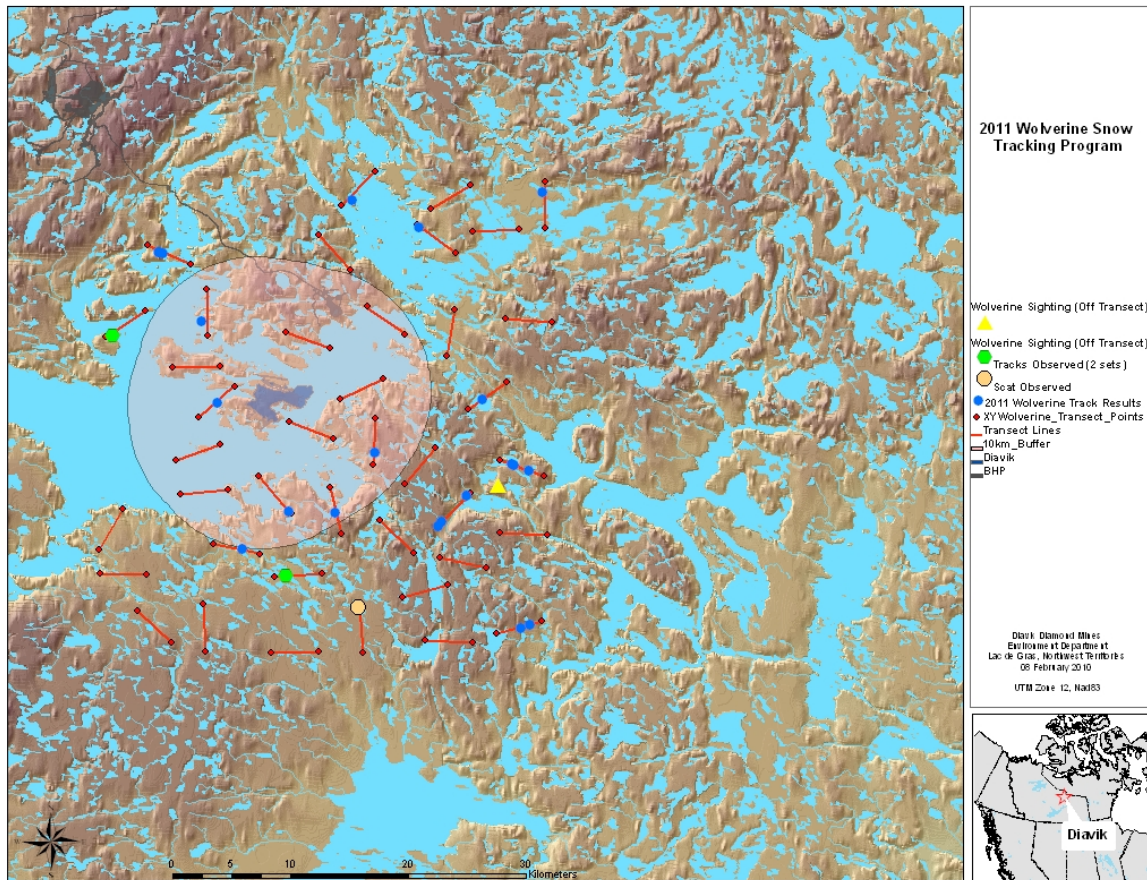
Diavik conducted wolverine snow track surveys in 2011 with a community assistant; 27 tracks were seen. Diavik also participated in the regional wolverine DNA program conducted in cooperation with the GNWT and BHP-Billiton. In the Diavik area during 2011, there were a total of 18 individuals (9 males, 9 females). The next round of DNA sampling is planned for 2014, depending on results from the GNWT.

The spring wolverine snow track survey was not done in 2010, as no community assistant was available. Winter wolverine snow track surveys (December) have been cancelled going forward due to poor tracking conditions with little snow on the open lakes and tundra. This makes snowmobile travel and track recognition very difficult.

Diavik participated in a joint research program with the GNWT and BHP Billiton in 2010 to collect wolverine hair and analyze it for DNA (this identifies individual wolverine). In the Diavik area during 2010, there were a total of 19 individuals (8 males, 11 females). There have been a total of 46 individuals identified in the Diavik area in 3 years of the program (Diavik conducted this same program in 2005 and 2006).

Wolverines were present on East Island in 2010. From 1 January to 31 December 2010, 28 wolverine sightings were reported. The number of occurrences of wolverine on East Island in 2008 was higher compared to most years; however it is important to realize that many of the sightings were of the male animal that was denning under South Camp. Many of the other sightings were of another wolverine that had a snow den on the west side of East Island during January and February 2008.

There was no mine-related mortalities of wolverine this year. In 2008 a wolverine was denning under the South Camp accommodations and caused damage and almost started a fire after chewing through electrical wires. This wolverine was trapped and killed with assistance and direction from the Government of the Northwest Territories. Since 2000, two wolverines have been relocated and two mortalities (2001 and 2008) have occurred at the Diavik mine site.



Will the distribution or abundance of raptors be affected by the mine development?

EA Predictions:

- Disturbance from the mine and the associated zone of influence is not predicted to result in measurable impacts to the distribution of raptors in the study area; and
- The mine is not predicted to cause a measurable change in raptor presence in the study area.

Observations:

Productivity and occupancy showed an increase over the range recorded in the Diavik wildlife study area since 2000. Historically, this is only the third year where six nests have been occupied during either the occupancy or productivity surveys. Chick production in the past has ranged from zero to seven. In 2008 and 2009, two out of six raptor nests had chicks in the nest. During 2007, a total of 7 chicks were recorded; this is equal to the number produced in 2006 and 2010 and these are considered the most successful years for chick production recorded since data collection began. The observations made in 2010 are similar to those of the control site at Daring Lake for productivity and occupancy rates have changed little since baseline.

The Golder (2011) analysis showed that the mine is not influencing the locations of raptors within the study area, and that activity levels at the mine are not a strong deterrent to nesting falcons. Annual changes in nest success were not related to the level of activity at the mine site.

No raptors were observed nesting on the high wall of the open pits in 2011. No falcons died because of mine operations in 2011.

Analysis over time showed that the mine is not influencing the locations of raptors within the study area, and that activity levels at the mine are not a strong deterrent to nesting falcons. Annual changes in nest success were not related to the level of activity at the mine site. The next regional raptor survey will be in 2015.

Raptor monitoring for peregrine falcons was done in May and July of 2010, in cooperation with the Government of the Northwest Territories. Falcon nesting sites included sites near the Daring Lake Tundra Research Station (July only), Ekati Diamond Mine, and Diavik Diamond Mine wildlife study areas. The falcon monitoring results from Daring Lake are used as a control data for productivity from an undisturbed area. Previously identified potential nesting sites were visited by helicopter in May to determine if nesting sites were occupied, and again in July to count any young in the nest.

Eight known nesting sites in the Diavik wildlife study area were each surveyed during 2010. During the spring occupancy survey conducted by Diavik and ENR, 6 of the 8 sites surveyed were occupied (7, 8, 11, 14, 19 and 19-2). 3 of the nests (8, 19, 19-2) contained a breeding pair of peregrines, while the remainder contained a single peregrine falcon. 4 eggs were seen at nest site 19.

The productivity survey was completed in July and found three of the eight nest sites with chicks (7, 19, 19-2).

Since May 2005, peregrine falcons have nested at Diavik on the highwall of the A154 pit in some years. There were no raptors nesting in the open pits in 2010, but frequent sightings of these birds were reported, indicating their continued use of the study area.

There were no falcon injuries or mortalities at the Diavik site during 2009.

Will the distribution or abundance of waterfowl be affected by the mine development?

EA Predictions:

- At full development, 3.94 km² of aquatic habitat will be lost; and
- The mine is not predicted to cause a measurable change in waterfowl presence in the study area.

Observations:

By the end of 2007, a total of 2.56 km² of shallow and deep water habitat had been lost due to mine development. There were no additional shallow or deep water areas developed in 2008, 2009, 2010 or 2011; therefore the total area of water habitat loss remained unchanged compared to 2007. The total habitat loss remains below predictions.

East Island shallow bays and mine-altered water bodies were surveyed for waterfowl presence daily from 23 May to 29 June 2011. Waterfowl were seen at the East Island shallow bays and are still using ponds and wetlands changed by or created for the mine site regularly.

No birds were killed at the mine site during 2011. One bird was killed at the mine site during 2010. A short-eared owl was found on 31 August near an equipment ready line and cause of death was unknown. Three other project-related bird mortalities have occurred, one each in 2009, 2005 and 2002.

Fish and Water

At Diavik, fish and water are monitored through the Aquatic Effects Monitoring Program (AEMP), discussed in detail in Section 1 of this report. The discussions below regarding fish and water come from the results of the AEMP.

What effect will the mine development have on water quality?

EA Predictions:

- Water will remain at a high quality for use as drinking water and by aquatic life (i.e. meet CCME thresholds);
- Localized zones of reduced quality during dike construction;
- Nutrient enrichment is likely from the mine water discharge (and may change the trophic status of up to 20% of Lac de Gras);
- Post-closure runoff expected to influence quality of two inland lakes.

2011 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2011. Overall, the program determined that nutrients (nitrogen and phosphorus) released into Lac de Gras from the treated mine water discharge are causing mild enrichment in the bay east of the east island.

Specific results of note from the 2011 Aquatic Effects Monitoring Program include:

- The analysis of effluent and water chemistry data collected during the 2011 AEMP field program and from relevant sites from the Water Licence SNP stations continued to show a low level effect on water chemistry in the lake resulting from the mine.
- Analysis of the number and types of small organisms that live on the bottom of the lake (benthic invertebrates) indicated a range of effect terms, from no effect to a high level effect, depending on what was analyzed. Low level or early-warning effects were detected for some species between the reference areas and exposure areas. Effects on total density (amount) and other benthic species density were classified as moderate level. A high level effect was found for the amount of one species. Benthic invertebrate monitoring results show effects of mild nutrient enrichment.
- Results to date of a special study to examine changes in amount, number and types of tiny animals (zooplankton) and algae (phytoplankton) that live in the water of Lac de Gras show a pattern consistent with nutrient enrichment from the mine. Results of the eutrophication indicators part of the AEMP were similar. Based on the measured higher amounts of algae (chlorophyll *a*) and total phosphorus near the mine versus farther from the mine, this effect remains at a “moderate” level effect designation. Higher zooplankton biomass near the effluent continued to result in a “high” level effects designation.
- Moderate nutrient enrichment from the mine water discharge has been shown for 15.5% of Lac de Gras, based on the amount of algae and phosphorous measured in the lake. This is below the predicted level of 20%.
- Results of the Lake Trout study suggest that there has been a slight increase in mercury in Lake Trout muscle tissue since 2005. This increase is seen in both Lac de Gras and Lac du Sauvage. The increase in mercury from before the mine was built resulted in a low level effect classification.

A technical analysis confirmed the nutrient enrichment effect and concluded that there continues to be strong evidence for a mild increase in lake productivity, and associated enrichment of the benthic invertebrate community, as a result of nutrient increases in Lac de Gras. There is some evidence suggesting low-level impairment to the small organisms on the bottom of the lake due to contaminant exposure but these findings have a high uncertainty because the link to contaminant exposure is not strong. The slight increases in mercury levels in fish tissue since 1996 have occurred in both Lac de Gras and Lac du Sauvage (upstream from the mine), and it is not likely that the increase is linked to mine operations. Diavik continues to monitor mercury levels in big

and small fish in the lake, as well as monitoring for other possible sources of mercury. This helps to try and find out what may cause any increases that do happen and catch any possible issues.

2010 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2010. Overall, the program determined that nutrients (nitrogen and phosphorus) released into Lac de Gras from the treated mine water discharge are causing mild enrichment in the bay east of the east island.

Specific results of note from the 2010 Aquatic Effects Monitoring Program include:

- The analysis of effluent and water chemistry data collected during the 2010 AEMP field program and from relevant sites from the Water Licence SNP stations showed a low level effect on water chemistry in the lake resulting from the mine.
- Results of the sediment analysis did not identify conditions that are likely to affect fish, bug or plant life in the lake through enrichment or harm. Bismuth and uranium were, however, assigned “high level effects” designations as both areas near the mine and at least one halfway down the lake had average concentrations greater than the areas farther from the mine. Measured levels of bismuth and uranium are unlikely to pose a risk to fish, bugs or plant life.
- Analysis of the number and types of small organisms that live on the bottom of the lake (benthic invertebrates) indicated a range of effect terms, from no effect to a moderate level effect, depending on what was analyzed. Low level or early-warning effects were detected based on statistical differences between the reference areas and exposure areas. Effects on total density and other benthic species density were classified as moderate level. Early-warning/low level effects were detected for the amount, distance and density of one species. Benthic invertebrate monitoring results are indicative of nutrient enrichment.
- A study was completed in 2010 to specifically delineate the spatial extent of the treated effluent (a “plume”) in Lac de Gras. The plume extent was similar between summer open-water and winter ice-cover conditions, but concentrations near the discharge point were higher during winter ice-cover conditions.
- One possible explanation for the 2007 finding of elevated mercury in small fish (Slimy Sculpins) was increased mercury being released from sediments because of nutrient enrichment from the treated mine effluent. A sediment core study was done to look in to this and it showed that this explanation was not likely, based on the results.
- Results to date of a special study to examine changes in amount, number and types of tiny animals (zooplankton) and algae (phytoplankton) that live in the water of Lac de Gras indicate a pattern consistent with nutrient enrichment from treated mine effluent. Based on the measured higher amounts of algae (chlorophyll a) and total phosphorus near the mine versus farther from the mine, this effect has been given a “moderate” level effect designation. Higher zooplankton biomass near the effluent resulted in a “high” level effects designation.
- Results for the small fish study indicate a pattern consistent with an increased availability of food and nutrients in the sampling areas near the mine compared to the areas farther from

the mine. Despite the moderate-level effects seen in the fish tissue chemistry for bismuth, strontium, titanium and uranium, there was no evidence that tissue metals concentrations were negatively affecting fish health.

- Mercury levels in small fish (Slimy Sculpin) at sampling sites near the mine were lower than reported in the 2007 AEMP. There was no significant difference between samples taken near the mine and those taken farther away from the mine in 2010, most importantly in relation to tissue concentrations of mercury. The reason for the differences between the 2007 AEMP results for mercury and the 2010 results is unknown; however, a different analytical laboratory employing slightly different methods was used in 2010.

A technical analysis confirmed the nutrient enrichment effect and concluded that there is strong evidence for a mild increase in lake productivity, and associated enrichment of the benthic invertebrate community and fish community, as a result of nutrient increases in Lac de Gras. There is little evidence of harm to lake productivity as a result of any contaminant exposure. Although there is some evidence suggesting potential low-level contaminant issues with benthic invertebrate and fish communities, these observations have a relatively high amount of uncertainty.

2009 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2009. There were only a few quality control samples (extra samples taken to test the accuracy of field and/or lab techniques) that were missed because of scheduling issues.

Similar to 2008, the 2009 Aquatic Effects Monitoring Program showed nutrient enrichment (increased levels of phosphorous and nitrogen in the water available for algal growth, where increasing algal growth is a sign of eutrophication, or increased lake productivity) in areas of the lake. Nutrient enrichment is the main change in Lac de Gras that leads to most of the other changes we see relating to the different animals that live in the water.

Specific observations that were noticed in the 2009 data include:

- The analysis of effluent (treated water discharged back in to the lake) and water chemistry (quality) data collected during the 2009 AEMP field program and from relevant stations from the Water License Surveillance Network Program stations indicated an early warning/low level effect on water chemistry within Lac de Gras resulting from the Mine. This means that there is a difference between samples taken near the mine and those taken farther away from the mine, but is within the expected range. Some values may be slowly increasing over time, though, so it is important to monitor for any changes that may occur from one year to the next.
- Results of the sediment analysis did not identify conditions that are likely to affect aquatic life through enrichment or impairment. Most of the metals and nutrients measured in the sediment had an early warning/low level effect on sediment chemistry. However, bismuth was assigned a “high level effect” designation; this means that samples near the mine and at

least one sample part way across the lake had average concentrations that were higher than those of the reference area at the other end of the lake.

- Analysis of the number and types of benthic invertebrates (small organisms that live on the bottom of the lake) indicated a range of effect designations, from no effect to a high level effect, depending on what was analyzed. Low level/early warning effects were detected based on significant differences between the reference areas further from the mine and the exposure areas near the mine in eight of twelve benthic invertebrate community variables compared (variables include things like the number of species found, whether one species was found more than another, number of organisms in a given area, number of midges, etc.). Total invertebrate densities, as well as two species densities (Pisidiidae and Heterotrissocladius sp.) were higher closer to the mine than the range measured in areas farther from the mine. Densities of Pisidiidae near the mine and part way across the lake were greater than the range measured in areas at the other end of the lake; for that reason, it was assigned a high level effect. These results relate back to the nutrient enrichment happening in the lake.
- Findings to date on a special study to examine changes in amount, number and types of zooplankton (tiny animals) and phytoplankton (algae) that live in the water of Lac de Gras show a pattern linked to nutrient enrichment from mine effluent. Because there are higher amounts of phytoplankton (chlorophyll a/algae) and total phosphorus in areas near the mine compared with areas farther from the mine, this effect has been given a “moderate” level effect designation. Higher zooplankton biomass (the amount of small animals in an area) near the effluent resulted in an early warning/low level effect designation; this means that there is a difference between the areas closer to and further from the mine, but that it is within the expected range.
- A weight-of-evidence (WOE) analysis compares all the information collected (water quality, sediment quality, benthic invertebrates, etc.) to try and answer two questions:
 - Could damage to aquatic animals happen due to chemical contaminants (primarily metals) released to Lac de Gras?
 - Could enrichment occur in the lake because of the release of nutrients (phosphorus and nitrogen) from treated mine effluent?

The weight-of-evidence analysis confirmed nutrient enrichment and concluded that there is strong evidence for a mild increase in lake productivity due to nutrient enrichment. There was not a lot of evidence of damage to aquatic animals as a result of contaminant exposure. The observation of potential low-level harm of the benthic invertebrate community has a fairly high amount of uncertainty.

2008 Observations:

The Aquatic Effects Monitoring Program was successfully implemented in 2008. There were only a few open water sediment/benthic samples that could not be obtained due to hard/rocky lake bottom and some water quality and plankton stations that were not sampled in the third open water period due to inclement weather. Special Effects Studies for mercury detection limits (measuring mercury at very low levels), chromium VI (a compound Diavik investigated because it

could be a concern at lower levels compared to other forms of chromium) and trout fish tissue metals levels (based on previous AEMP studies that showed possible elevated level of metals in fish) were also completed.

Overall, the 2008 Aquatic Effects Monitoring Program determined that nutrients (nitrogen and phosphorus) released into Lac de Gras from the treated mine water discharge are causing mild nutrient enrichment in the bay east of East Island.

Nutrients are essential to the growth of plants and animals in land and in the water. Adding nutrients to natural waters can result in increased production of plants or algae. Too many nutrients can cause environmental problems generally known as nutrient enrichment or eutrophication. These problems include increased oxygen consumption in the water by algae (fish need this oxygen too) and a reduction in the amount of light getting to plants at the bottom of the water body.

Other results of note from the 2008 Aquatic Effects Monitoring Program include:

- Dust gauges and snow core sampling both provide useful information on dust deposition rates and distribution around the mine site. Dust continues to be an issue that requires ongoing management.
- The analysis of effluent and water chemistry data collected during the 2008 AEMP field program and from locations around the mine site (from Surveillance Network Program) indicated a low level effect on water chemistry within Lac de Gras resulting from the mine.
- Results of the sediment analysis did not identify conditions that are likely to affect aquatic life through enrichment or impairment. Bismuth and uranium (metals) were however assigned “high level effects” designation as both near-field and at least one mid field area had mean (average) concentrations greater than the reference area (sites far away from the mine) range.
- Analysis of the number and types of small organisms that live on the bottom of the lake (benthic invertebrates) indicated a range of effect designations, from no effect to a high level effect, depending on the variable analyzed. Low level or early warning effects were detected based on differences between the reference areas (far away from the mine) and exposure areas (near the mine) in eight of eleven benthic invertebrate community variables compared. Density (number of individuals in a specified area) of the midge *Procladius* in the near-field area were greater than the range measured in the reference areas and was assigned a moderate level effect. Density of *Sphaeriidae* in the near-field and mid field areas greater than the range measured in the reference areas and was assigned a high level effect. Both results are indicative of nutrient enrichment.
- The fish liver tissue analyses from 1996, 2005, and 2008 has not indicated that there has been an increase in the concentration of metals, including mercury, in lake trout over that period and therefore a no effect classification has been assigned for lake trout usability.

- Findings to date on a special study to examine changes in amount, number and types of tiny animals (zooplankton) and algae (phytoplankton) that live in the water of Lac de Gras indicate a pattern consistent with nutrient enrichment from mine effluent. Based on the measured higher amounts of phytoplankton (chlorophyll a) and total phosphorus in the near field areas compared with the reference areas this effect has been given a “moderate” level effect designation. Higher zooplankton biomass near the effluent resulted in a “high” level effects designation.
- Mercury and chromium VI levels in the treated mine water discharge, both subject of special studies in 2008, were determined to be at concentrations below the best analytical detection limits available.
- The AEMP confirmed that there is a nutrient enrichment effect and concluded that there is strong evidence for a mild increase in lake productivity due to nutrient enrichment. There is negligible evidence of impairment to lake productivity as a result of any contaminant exposure. The observation of potential low-level impairment of the benthic invertebrate community has a relatively high degree of uncertainty.

No changes to the monitoring program design are recommended at this time. Items have been identified for consideration during the program review that will follow the implementation of the program in 2010. Special studies on dust sampling frequency, mercury detection limits, and chromium VI are now complete. The mine effluent plume delineation survey (a study of the area where treated water from the mine mixes with Lac de Gras water) originally planned for 2009 is proposed to be conducted in 2010 so that the survey can evaluate the effectiveness of the new treated mine water discharge line that is being installed as part of the water treatment plant expansion that has been ongoing since 2007.

Follow-up special studies from the 2007 program finding of elevated mercury levels in slimy sculpin will include a 2009 joint research program with Fisheries and Oceans Canada to assist in understanding if mercury in the slimy sculpin tissue is related to the treated mine water discharge (if nutrient enrichment may affect mercury uptake in fish), and a repeat of the small-bodied fish survey in 2010.

2007 Observations:

- Effluent and water chemistry data collected indicated a low-level effect on water chemistry within Lac de Gras from the mine.
- Lakebed sediment chemistry data indicated a potential low-level effect for lead, and a potential high level effect for bismuth and uranium on sediment chemistry within Lac de Gras from mine activities, although benthic results suggest that sediment exposure concentrations are unlikely to pose risk to aquatic life.
- Benthic invertebrate analyses indicate a low-level nutrient enrichment effect on benthic invertebrates within Lac de Gras.

- The fish study indicated a pattern consistent with an increased availability of food and nutrients in near-field and far-field exposure areas compared to far-field reference areas. Elevated barium, strontium, mercury and uranium in slimy sculpin was assigned a moderate-level effect.
- Dike monitoring results revealed potential dike-related minor changes to water quality and concentrations of lead and uranium in sediment. Overall, analyses suggest benthic communities near the dikes are more likely responding to habitat variation than to changes in water quality or sediment chemistry.
- Eutrophication indicators showed a moderate-level nutrient enrichment effect within Lac de Gras, with the mine being a significant contributor to this effect.
- As with the previous year's results, despite the proximity of SNP Station 1645-19 to the effluent diffuser (60m), open-water and ice-cover water quality results remain within Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Aquatic Life.
- Ice-cover concentrations at SNP Station 1645-19 still tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water, resulting in better initial dilution or mixing.

2005/2006 Observations:

Due to pending changes to the AEMP, data reports were completed for the 2005 and 2006 programs, however, a report of the analysis and interpretation was not submitted.

2004 Observations:

- As with the previous year's results, despite the very close (60m) proximity of SNP Station 1645-19 to the effluent diffuser, open-water and ice-cover water quality results remain within Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Aquatic Life.
- Ice-cover concentrations at SNP Station 1645-19 still tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water, resulting in better initial dilution or mixing.
- Data analysis was conducted following the approved four step process. The results of the first step of the data analysis methods identified that there were changes in the concentrations of six parameters. Total arsenic and total nickel results were compared with original EA predictions (data analysis step 3). Measured changes are within the levels predicted in the environmental assessment and are below levels that would cause environmental effects.

- As with the previous year, the results for several of the parameters indicated a possible change when the actual reason for the positive results was a low baseline statistic. There are also locations (LDG50) or parameters (nitrite at LDG46) where baseline data are not available and so the data analysis is not possible. Finally there are parameters where baseline detection limits have dominated the baseline statistic and could result in changes not being detected. It is therefore recommended that the Diavik Technical Committee, with Diavik, reset trigger values for the step 1 analysis on a parameter-by-parameter basis.

2003 Observations:

- Despite the very close (60m) proximity of SNP Station 1645-19 to the effluent diffuser, open-water and ice-cover results remain within CCME Guidelines for the protection of aquatic life.
- Ice-cover concentrations at SNP Station 1645-19 tend to be higher and more variable than open-water concentrations. This is likely a result of increased wind driven lake circulation in the open-water resulting in better initial dilution or mixing.
- Data analysis was conducted following the approved 4 step process. The results of the first step of the data analysis identified specific monitoring locations where there were changes in the concentrations of seven water quality parameters. Of these, only total arsenic could be identified as possibly being caused by the NIWTP effluent (data analysis Step 2). Measured changes in total arsenic are within the levels predicted in the environmental assessment (data analysis Step 3) and are below levels that would cause environmental effects.
- The results for several of the parameters indicated a possible change when the actual reason for the positive results was a low baseline statistic. There are also locations (LDG50) or parameters (nitrite at LDG46) where baseline data are not available and so the data analysis is not possible. It is therefore recommended that in the future the data analysis method be modified so that the baseline references are from the combined mid-field and far field sites instead of each individual monitoring site. This change would reduce the number of false positives results.

2002 Observations:

- Water quality at all Lac de Gras monitoring locations, including sites immediately adjacent to effluent diffuser remained high.
- Increases from location specific baseline levels were measured for turbidity and suspended solids at 3 mid-field monitoring stations, however all remained within typical baseline values for the area.

- Predicted nutrient enrichment effects were not realized although phytoplankton biomass was determined to have increased over baseline at one far-field location but not at any mid-field locations.
- No trends or specific concerns were noted for zooplankton, benthic invertebrates and sediment quality, based on two sampling results.
- Snow chemistry results were all below discharge limits.

Previous Years Observations:

- Localized increases in turbidity, suspended solids and aluminium were measured due to dike construction.
- Water and sediment quality, zooplankton, phytoplankton and benthic invertebrate results were generally consistent with baseline, however some results, particularly benthic invertebrate numbers, showed larger year-to-year variability.

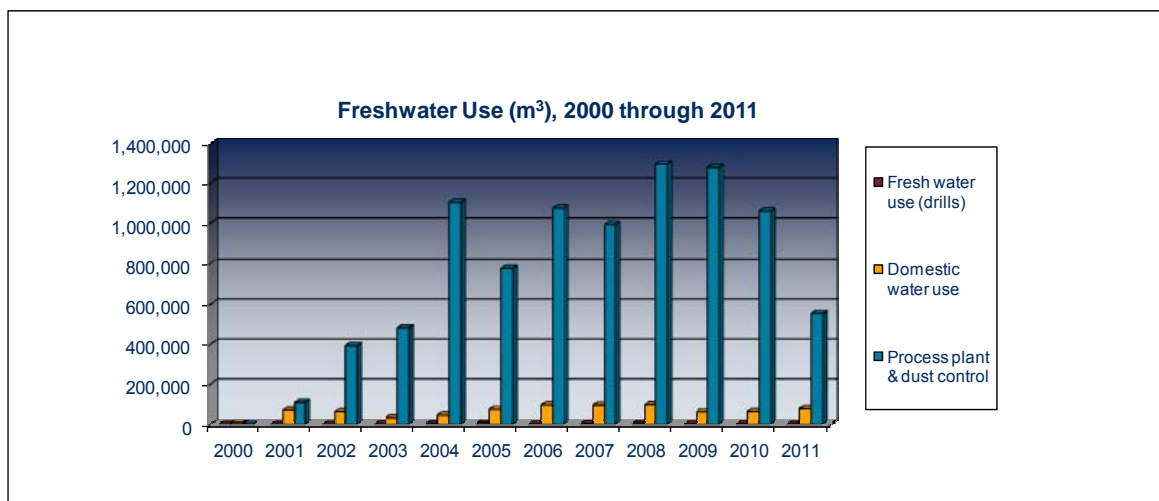
What effect will the mine development have on water quantity?

EA Prediction:

- Water supply to the mine is not limited and use of the resource will not cause changes in water levels and discharges from Lac de Gras beyond the range of natural variability.

Observations:

The figure below shows the fresh water used from 2000 to 2011, and what it was used for. Baseline information indicated that the water level of the lake normally fluctuates between level 415.5 m and 416.0 m on an annual basis. The table below shows water levels at various dates since 2004. Use of water from Lac de Gras by Diavik is not causing changes in water levels beyond natural variability.



Date	Elevation (m.a.s.l)
September 21, 2004	415.31
April 1, 2005	415.26
June 20, 2005	415.41
August 2, 2005	415.59
September 7, 2005	415.52
October 15, 2005	415.42
May 25, 2006	415.47
June 24, 2006	415.60
August 28, 2006	415.76
July 7, 2007	415.62
August 21, 2008	415.50
October 15, 2008	415.69
June 13, 2009	415.33
September 28, 2009	415.61
October 21, 2010	415.46
October 15, 2011	415.21

What effect will the mine development have on fish?

EA Prediction:

- On a regional scale the only effect on the fish population of Lac de Gras would be due to angling;
- The effect of increases in metal concentrations in fish flesh would be negligible (i.e. metal concentrations in fish flesh would not exceed consumption guidelines (500 ug/kg for mercury);
- Mercury concentrations will not increase above the existing average background concentration of 181.5 µg/kg; and,
- Local effects due to blasting, suspended and settled sediment from dike construction, increase in metal concentrations around dikes and post-closure runoff.

Observations:

Since 2000, no fish have been taken by recreational fishing from Lac de Gras by Diavik. From 2003 until present, the fish from Lac de Gras have tasted good according to participants in the community-based monitoring camps that are held during the summers. Scientific testing for metals levels in fish tissue and organs that were caught during these camps were also as expected - the results showed no concerns.

An increased amount of mercury was detected in tissue from small fish (slimy sculpin) taken from the lake in 2007. In 2008, Diavik conducted a study to further evaluate the elevated mercury in fish tissue, this time studying large-bodied fish (lake trout). The fish liver tissue analyses indicated that there is no concern relating to the concentration of metals, including mercury, in lake trout, but that some very large/old fish did show higher levels of mercury than smaller fish, as can be expected. A mercury study was also completed on treated mine water discharge and determined that concentrations are below the best analytical detection limits available.

Based on the results of the 2008 trout survey, it was determined that mercury levels were safe for consumption and that the fish palatability study could be done in 2009. Participants from each of the community groups for the Diavik mine participated in the fish palatability study at site. Four fish were cooked for tasting using the same methods as previous studies, and fish tissue and organ samples were taken for metals testing, including mercury. Each of the four fish that were cooked for the palatability study also had metals samples submitted for testing. Results for the metals levels in the fish tested during the 2009 fish palatability study showed mercury levels below Health Canada's guideline for consumption and that fish were okay for eating.

Additional follow-up special studies included a 2009 joint research program with Fisheries and Oceans Canada (DFO) to assist in understanding if mercury in the slimy sculpin tissue (identified in 2007) is related to the treated mine water discharge. Results from this study did not support the idea that higher levels of mercury may be because of increased mercury being released from sediments with nutrient enrichment from the treated mine effluent.

The small-bodied (slimy sculpin) fish survey was also done again in 2010. Results show that there is some change to size and condition of the fish that would be consistent with nutrient enrichment (more availability of food and nutrients); this was found closer to the mine. There were some metals in the fish tissue that could have a moderate effect on fish, but there did not appear to be any impacts to fish health. Mercury levels in the fish tissue were lower than previously reported in 2007 and were within the expected range. A different lab was used to analyze the tissue samples, but the reason for the differences between the 2007 and 2010 studies is not known.

A large-bodied (lake trout) fish survey was done in 2011 to test mercury levels in fish. The results from this study showed that mercury levels are increasing slightly in both Lac de Gras and Lac du Sauvage. The average mercury concentration in lake trout from Lac de Gras was similar to that found during 2008. This number is a length-adjusted number because mercury concentrations increase with size and age. The lake trout in Lac du Sauvage were found to have average mercury concentrations higher than those found during 2008; this lake is upstream from Diavik. A

low-level effect was given for fish mercury levels, though it doesn't appear to be linked to the mine. Further samples of lake trout will be taken in 2012.

Fish habitat utilization studies showed that lake trout continue to use both natural and man-made shoals near the A154 dike.

A Blasting Effects Study was done starting in 2003 and showed no effects on fish eggs.

Other observations made in past years include:

Sediment deposition rates measured during the construction of the dikes were below levels predicted in the Environmental Assessment.

In 2002, 2526 fish were salvaged from inside the A154 dike pool and released in Lac de Gras. 526 fish were salvaged from the North Inlet and released to Lac de Gras.

In 2006, 725 fish were salvaged from inside the A418 dike pool and released in Lac de Gras.