



Snap Lake Environmental Monitoring Agency



2010-2011
ANNUAL REPORT

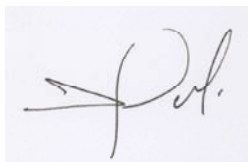
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Message from the Chairperson

It is my pleasure to present the 2010-2011, Snap Lake Environmental Monitoring Agency (SLEMA) Annual Report. We have put together information that we hope will provide you with a summary of our many activities. During the year SLEMA has actively reviewed plans and reports produced by De Beers. SLEMA has provided all the stake holders with a monthly report of changes and events at the mine, as well as a summary of SLEMA activities. SLEMA has strongly encouraged De Beers to integrate Aboriginal Traditional Knowledge into the monitoring programs at Snap Lake. This resulted in the caribou monitoring camp that took place in September 2010 just north of Snap Lake. SLEMA has held workshops involving elders, De Beers and representatives from the government to bring together all the stake holders. SLEMA has been heavily involved in the process of the Snap Lake Water License renewal by hiring a northern based consultant to advise and guide SLEMA through the process. SLEMA has attended all the technical workshops and has produced a list of recommendations for the water license which hopefully will be incorporated into the new license.

SLEMA will endeavour to ensure that all parties and stake holders work toward protecting the environmental health of Snap Lake and the wildlife in the area of Snap Lake. SLEMA will continue to communicate with First Nations stake holders, De Beers and Government in an effort to raise the bar of environmental performance at Snap Lake. SLEMA will work towards incorporating Traditional Knowledge into the environmental monitoring. Efforts made by SLEMA and through SLEMA will hopefully spill over, not only into the diamond mining industry in the Northwest Territories, but into all resource extraction industries operating across the territory.

A handwritten signature in black ink, appearing to read 'J. Weyallon', is centered on a light blue rectangular background.

Johnny Weyallon

Chairman

Dogrib Translation

Chairperson Wegodi

Dı nıhtł'è 2010 – 2011 xo gots'ò Snap Lake Ndè Wehoidı Environmental Monitoring Agency (SLEMA) Annual Report gha wenıhtł'è hohıe hq't'e. Dzq godı dek'èhtł'è ghàà, t'ası edatłq k'è eghàlats'ııda sıı wek'èhodzq ha hq't'e. Xo ghàà SLEMA wenıhtł'èkò gots'ò De Beers nıhtł'è ageèh?ı sıı hazq wek'aeta. SLEMA wenıhtł'èkò gots'ò sa tat'è edaàni t'à t'ası ładı ageèle ha eyıts'q sqmbak'è edàgot'ı haàni wegodi hazq kòta gots'ò ageèh?ı hq't'e. SLEMA wenıhtł'è dı hagııwq, De Beers de?q Dqne Sqıı Wenaàwo - Aboriginal Traditional Knowledge t'à ageèt'ı t'à Snap Lake ndè k'è t'ası hazq wehoidı ha gııwq. Hats'eèdı t'à September 2010 k'è Snap Lake gots'q ık'èda ts'qne ekwò hoidı t'à eghàlats'ııda ıle. SLEMA wenıhtł'èkò xè qhda, De Beers gots'q dq eyıts'q ndèts'ò k'aowoh chekè ełegeèhdi t'à ełexè nqgeèdè. SLEMA wenıhtł'èkò edaàni Snap Lake tı nıhtł'è gıghàzè k'è eghàlageèda t'à, edzanè k'è gots'q dq t'ası haàni k'è gogha k'èyaeti gha nıgeètł'è hq't'e. SLEMA gots'q eghàlaede dq hazq ełegeèdı goxè agııt'ı t'à edaàni tı t'à eghàlageèda ha sıı hagıts'eèdı ha ts'ııwq, tı nıhtł'è wegoo wexè dek'èhtł'è ade ha ts'ııwq.

SLEMA xè eghàlaede dq eyıts'q kòta gots'q dqne xè eghàlageèda t'à Snap Lake ndè t'asawodech'à wehoidı ha eyıts'q Snap Lake tıch'adı sıı wehoidı ha hq't'e. SLEMA kòta gots'q dqne sqıı, De Beers eyıts'q Ndèts'ò K'aowoah xè gogedo t'à Snap Lake de?q ndè hoidı t'à eghàlageèda ha ts'ııwq. SLEMA wenıhtł'è Traditional Knowledge Dqne Naàwò t'à de?q ndè hoidı ha eghàlats'eèda ha. SLEMA haàni edzanè k'è diamond mine xè eghàlageèda sıı mine hazq ndè ts'q t'ası hàgele sıı haàni eghàlageèda ha ts'ııwq.

Chipewyan Translation

K'aldher begaré nati dené bayati niæã

Ku sîni sî jâ 2010-2011 xaiyé t'át'ú Snap Lake nare æasié hadi hél gháládá hunidher si SLEMA dené bá æasié haâni gharé hadi. Jâ hani nathilts'î si begharé hanuní xá nidé. T'at'u Æasié hadi si ghâ hadi. SLEMA begharé t'at'u De Beers æasié ghálaná noniæã si haâni hél yálnî Æeat'é. SLEMA æasié haâni gharé sá kánélt'u Dené hél halni æasié æedô æajá dé tsambá k'é nare gháládá si tth'î t'at'u SLEMA æasié haâni si chu deené hél hadi. SLEMA si De Beers bá yati natser théãæã si Dené ch'anié hél tsambá k'é nare æasié hadi de nezô xá Snap Laké nare. Diri bet'á æethên hadi hunidher Snap Lake yutthê niæã nené k'é hadi diri xaiyé áué daát'vîzá 2010 ku tth'î SLEMA si Dené helnaîáti Æáãneth dené hél détt'h'î. De Beers si begharé t'á Dené behél tsambá k'é noni æã si chu k'aldé si æaãá gháládá xá hadi. SLEMA si behél nadher si ku ts'î æerítá'is dé góth nalyé si ts'î æané Dené hat'í hél ghálaná sí jâ Æédzá nené ts'î Dené norítá'is hanuyéâtên hel t'at'u beghalada si chu hadi. SLEMA si diri ku ts'î æerítá'is degóth nalyé si behél nadher ni lé tth'î dené ch'anié hél gháládá si ts'î yati æerítá'is haáé si behel nilyé hoæã diri ku ts'î æerítá'is góth naáé si hél hadi.

SLEMA si harélyô æasié hadi si Snap Laké nare æaké yáâni hél t'ã Dené behél nadher si haâni hel ni chu kéch'ándié tsédhi ch'á badi si Snap Laké nare. SLEMA si Dené sôãinë horélæã nadé si hel hál ní xá diri æasié hadi De Beers behél tth'î Government chu Snap Laké tsídhi ch'á gháládá æaké badi hdi. SLEMA si Dené ch'anié hél æasié hadi hunidher si æerítá'is nedhé haáé dé beghá Dené ch'anié bel æálné xá. SLEMA æasié hadi huniáther tsãmbá k'é nare dezî æédza nené k'eyaghé tthé luzé ghâ nats'édi si chu t'ã tsambá héãtsi si yegharé ghálaná hoæã tth'î t'ã Dené ni hel ghalaná si.

Johnny Weyallon

Begharé nati Dené

What is SLEMA

The Snap Lake Environmental Monitoring Agency's (SLEMA) Board was established as part of the De Beers Snap Lake Diamond Project, Environmental Agreement established between De Beers, Government of Canada, Government of the Northwest Territories and the four affected Aboriginal Organizations. The Aboriginal representatives on the SLEMA board are from the Tlicho Government, Yellowknives Dene First Nation, North Slave Metis Alliance and the Lutsel K'e Dene First Nation. SLEMA has been working since 2004 towards its mandate of supporting the aboriginal parties in protecting the environment. SLEMA communicates with both industry and government to ensure compliance and fulfillment of environmental and regulatory obligations from all parties. SLEMA maintains a web site and produces a monthly update to disseminate information about events and activities related to environmental performance at the Snap Lake Mine. SLEMA is a reservoir of information on the Snap Lake mine. SLEMA has staff and board members that have been with this project for 5 years or more, some members that were involved in the initial drafting of the Environmental Agreement. SLEMA has the continuity and experience that makes it a valuable asset to all the parties, especially in an environment of ever changing staff that is the reality of the Northern workplace.

What are SLEMA's Responsibilities

SLEMA's mandate is established under Article IV Section 4.2 of the Environmental Agreement and are as follows.

- (a) support the Aboriginal Parties' efforts to protect the environmental interests on which they rely;
- (b) support collaborative and information-based liaison amongst all the Parties;
- (c) support De Beers, Canada, and GNWT in their respective efforts to protect the environment;
- (d) review and monitor the environmental performance of the Project using western science and traditional knowledge;
- (e) work with De Beers to mitigate environmental impacts of the Project thereby mitigating the potential for socio-economic effects;

(f) serve as a public watchdog of the regulatory process and the implementation of this Agreement;

(g) make recommendations to any body having regulatory or management responsibility for a matter, for the achievement of the purposes and guiding principles in this Agreement;

(h) facilitate programs to provide information to and consult with the members of the Aboriginal Parties;

(i) report to the Parties and the public on the Monitoring Agency's activities and the achievement of its mandate; and

(j) provide an accessible and public repository of environmental data, studies and reports relevant to the Monitoring Agency's mandate.

How is SLEMA Structured

SLEMA is directed by a board of eight individuals with two representatives each from the four signatory aboriginal groups. The board takes direction from two panels, a science panel and a traditional knowledge panel. SLEMA also has two full time employees, an Executive Director that administers the agency and an Environmental Analyst, who reviews documents from De Beers and also provides direction to the board.

Executive Board Members:



Johnny Weyallon

Chairperson

Tlicho Government



Rachel Crapeau

Vice Chairperson

Yellowknives Dene
First Nation



Charlie Catholique

Secretary

Lutsel K'e Dene First
Nation



Sheryl Grieve

Treasurer

North Slave Metis
Alliance

Board Members:



Greg Empson

Yellowknives Dene
First Nation



Hugh McSwain

North Slave Metis
Alliance



Noel Drybones

Tlicho Government



James Marlowe

Lutsel K'e Dene First
Nation

Traditional Knowledge Panel:

Eddie Camille and Harry Apples, Tlicho Government

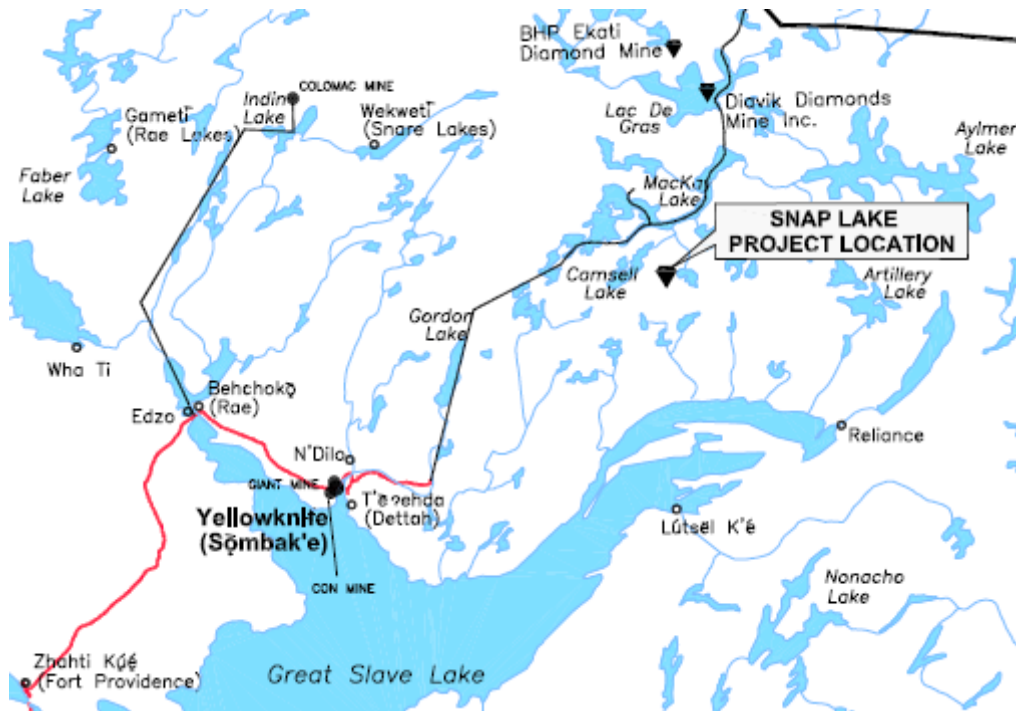
Eddie Jones and Wayne Langenham, North Slave Metis Alliance

Albert Boucher and Madeline Drybones, Lutsel K'e Dene First Nation

Mike Francis and Alfred Baillargeon, Yellowknives Dene First Nation

Snap Lake Diamond Mine

The Snap Lake Mine (Mine) is a diamond mine owned and operated by De Beers Canada Inc. (De Beers), and is located about 220 kilometres northeast of Yellowknife, Northwest Territories (NWT). De Beers received regulatory approval for the Mine in 2004, which included Environmental Agreement, Water Licence, Land Use Permit, Land Lease, and Fisheries Authorization. Mining began in 2007 and is expected to continue for 22 years.



Map 1. Location of Snap Lake Diamond Mine

In 2010, the Mine restored the production from a reduced capacity in 2009 due to the economic downturn, and maintained production level through 2011. 841,286 tonnes of kimberlite were processed, and 926,000 carats of diamond were produced.

De Beers has committed to maintaining the highest environmental management standards. The Snap Lake Mine is the only diamond mine in the NWT that has certified its environmental management systems to the high international standard, ISO 14001, through advanced exploration, construction and operations.



- | | | | |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| 1—Air Strip | 7—Construction Camp | 13—FAR | 19—Mine Dry/Admin |
| 2—Crusher/Waste Management | 8—Fuel Storage | 14—Satellite Welding Shop | 20—Permanent Camp |
| 3—AN Storage | 9—Tire Shop | 15—Satellite Mine Shop | 21—Process Plant |
| 4—Emulsion Plant | 10—Fresh/Fire Water Pump | 16—WTP/Power House | 22—Water Management Pond |
| 5—North Pile | 11—Cement Storage | 17—Heated Storage | 23—Organic Waste Collection |
| 6—East Cell | 12—Satellite Mobile Shop | 18—Main Shops/Warehouse | 24—Lay Down/Cold Storage |

Photo 1. Mine Site

There were 12 Water Licence inspections and 8 Land Use Permit inspections conducted by the Inspector of the Indian and Northern Affairs Canada (INAC) in 2010, and all issues brought up by the Inspector were addressed or are being addressed.

Within 2010, approximately 715,594 tonnes of coarse reject of processed kimberlite (PK) and 603,359 m³ of slimes were deposited in the North Pile Starter Cell. 7,289,399 m³ of mine water, collected runoff and process water were treated in the Water Treatment Plants and discharged into Snap Lake. In addition, 291,555 m³ of water were recycled in the Mine.

In 2010 De Beers began the development of the North Pile East Cell, and planned to deposit PK paste into the East Cell in 2012. The permanent camp was completed and occupied at the end of 2010, and the decommissioning of the construction camp was scheduled in 2011.

After the construction of the new Storage Facility for Ammonia Nitrate (AN) in 2009, elevated ammonia concentrations were detected in the environment near the historic AN Pad in 2010. De Beers was directed by INAC inspector to clean up the site in 2011.

In February 2011, De Beers was granted a new Land Use Permit (MV2010C0053) to replace the expired one (MV2001C0012). Current Water Licence (MV2001L2-0002) is approaching its expiry date (April 2012). As a result, in June 2011 De Beers submitted its Water Licence Renewal application and requested a term of 15 years for the new Water Licence (MV2011L2-0004).

Agency Activities 2010-2011

- During the 2010-2011 reporting period, SLEMA sent out 9 comment letters. The documents reviewed include, but are not limited to, Water Licence Renewal (MV2011L2-0004), draft Land Use Permit (MV2010D0053), update of Adaptive Management Plan and Interim Mine Closure and Reclamation Plan, annual reports under the Environmental Agreement, Water Licence and Fisheries Authorization, monthly reports of Surveillance Network Program (SNP), INAC inspections reports, and comments made by stakeholders.
- Monthly Environmental Update, which outlines the updates of the Mine, the inspections, the regulators and other stakeholders, and comments and recommendations made by SLEMA, has been published since July 2009, and distributed to board members, Science Panel members, Aboriginal communities, and other stakeholders, including MVLWB, INAC, DFO, EC, ENR and De Beers.
- SLEMA held two wildlife workshops (December 2, 2010 and May 19, 2011,) with elders from four communities.
- SLEMA observed one fish tasting event on September 8, 2011. No site visit was made in 2011.

Environmental Agreement

2009 Environmental Agreement Annual Report

De Beers 2009 Environmental Agreement Annual Report (2009 EAAR) was submitted on October 27, 2010. The submission follows the 2008 EAAR template, which was

accepted by stakeholders, but no further improvement in better visualization of monitoring results such as photos and charts.

SLEMA Comments

The Report is acceptable for the purpose of the Environmental Agreement. It is recommended that De Beers further improve the report presentation.

Update of Management Plans

De Beers updated two management plans in 2011.

- Adaptive Management Plan on April 29, 2011, and
- Interim Mine Closure and Reclamation Plan on April 8, 2011.

Adaptive Management Plan

Adaptive management is a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs. It is a logical way of dealing with uncertainty. Adaptive management involves learning from the successes and failures of the solutions that have been tried and applying this learning to develop better solutions.

The original Adaptive Management Plan (AdMP) was provided to the Mackenzie Valley Land and Water Board (MVLWB) in August 2004, as a requirement of Water Licence MV2001L2-0002. The major change of the new version from the original version is that the linkage between the AdMP and the Aquatic Effects Monitoring Plan (AEMP) is only discussed in this plan at a high level.

De Beers intends to develop a secondary Monitoring Response Plan that would be used in conjunction with the AdMP. The Monitoring Response Plan is said to be focused on responses to the results of on-site monitoring programs and provide the linkage between the terrestrial and aquatic monitoring programs and the operational management of the mine, as showed in Figure 1.

The Figure 1 illustrates how De Beers manages environmental aspects of ongoing work at the Mine site.



Figure 1. Environmental Management System at the Snap Lake Mine (From De Beers Adaptive Management Plan, 2011)

SLEMA Comments

The updated AdMP identifies actions levels in relation to water license requirements. However, some of the action levels lack in supporting data or information, and some are questionable. These issues should be addressed via correspondence or in the upcoming Monitoring Response Plan.

Interim Mine Closure and Reclamation Plan

Two closure scenarios are considered in the Interim Mine Closure and Reclamation Plan (ICRP): temporary closure and permanent closure and reclamation.

- Temporary closure management and accountability structure, monitoring, maintenance and reporting program, and temporary closure contingency plan are presented for a temporary closure event.
- Closure of individual mine components, objectives and criteria for performance evaluation, and considerations regarding a contingency plan for permanent site closure are presented for the permanent closure scenario. As part of the site closure, progressive reclamation of the North Pile is also discussed.

Based on the ICRP, the projected environmental conditions after the closure will be

- Physically altered immediate area of the Mine site due to the mine development.
 - Changes will remain evident in the areas of the North Pile, plant site, site roads and airstrip after reclamation. However, the reclamation work will help blend these sites into the surrounding landforms over the long term.
 - The re-establishment of natural vegetation will be slow.
- Minimal impact on the biodiversity and sustainability of the natural renewable resources of the region and no lasting effect on traditional and non-traditional land use activities in the area.

SLEMA Comments

The submission looks like a draft, and major revision is needed. The goal, objectives and criteria should be clearly defined, more details such as progressive reclamation should be added, and updates such as figures of the North Pile closure process should be done. More detail on SLEMA comments can be found in the Summary Table attached.

Wildlife and Vegetation

Vegetation Monitoring Program 2010 Annual Report and Wildlife Effects Monitoring Program 2010 Annual Report were submitted in May 2011. The monitoring results are summarized as follow.

Vegetation Monitoring in 2010: Detailed survey at the Snap Lake Mine is not required annually. Last detailed survey was in 2008, and next one is scheduled in 2013.

Although four dustfall samples in 2010 exceeded the Alberta Ambient Air Quality Objective for commercial and industrial properties, overall, dust did not appear to have an effect on vegetation at the Mine site.

Wildlife Monitoring in 2010: So far, the effects of the Snap Lake Mine to wildlife have been within the range predicted in the Environmental Assessment Report. In 2010, the measures for caribou and bear indicated low levels of activity by these species. It is likely that some of these changes are influenced by the decline in the Bathurst caribou herd, and the bears, wolverine, and wolves that depend on caribou. Wildlife habitat loss due to the expanding Mine footprint has occurred as expected, and the Mine is currently about 71% of its total predicted size. A total of 11 wildlife incidents were recorded at the Mine in 2010, and they were mostly related to fox and wolverine at site. Wildlife mortalities have been very rare at the Mine, and a fox, a ptarmigan and two songbirds were all found dead within the Mine footprint in 2010. The number of occupied raptor nests was greater in 2010 than in 2009, however, nest success was 14% in 2010 and lower than in 2009.

Anne Gunn, SLEMA Science Panel, is reviewing the Wildlife Effects Monitoring Program 2010 Annual Report. The Vegetation Monitoring Program 2010 Annual Report will be reviewed by an independent expert.

Air Quality

Mine operations such as combustion of diesel fuel, movement of vehicles/equipment, and airstrip activities, generate air quality problems of dustfall, toxic gas and greenhouse gas emissions. De Beers Meteorological and Air Quality Monitoring Program include three components: meteorological, particulate monitoring and passive gas monitoring.

Air Quality, Meteorological Monitoring and Emission Reporting 2010 Annual Report was submitted in June 2011. Monitoring results in 2010 show that

- 24-hour TSP standard ($120 \mu\text{g}/\text{m}^3$) was exceeded four times during 2010, and no territorial guidelines for PM_{10} and $\text{PM}_{2.5}$ were exceeded;
- The peak concentrations of both NO_2 and SO_2 fall well below related air quality objectives; and
- Emissions were well below the 2007 Air Modeling Update, and the 2010 SO_2 emission rates are higher than that in 2009 due to the inclusion of furnaces that burn waste oil with higher sulphur content.

SLEMA comments

No concerns are raised. SLEMA looks forward to reviewing the results of follow-up stack testing for incinerator, which was scheduled in 2012, in order to confirm the compliance of incinerator emission.

Water Licence

Water Quality

Total Dissolved Solids (TDS) is an aggregate indicator of the presence of a broad array of chemical contaminants, thus it is chosen to reflect water quality change in Snap Lake. The observed whole-lake average concentrations of TDS continue to show a clear uptrend (see Figure 2), which is much higher than EAR predictions. The reason is the higher than predicted TDS loadings in the minewater.

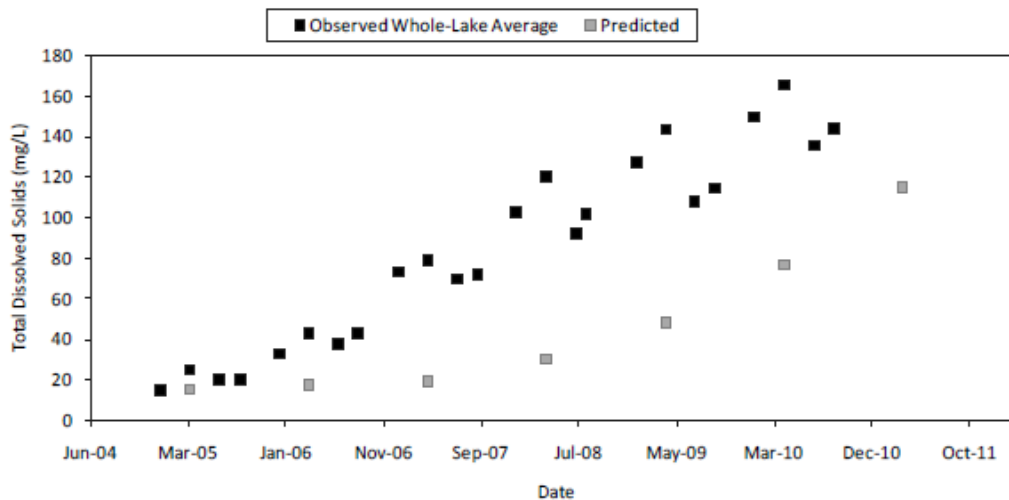


Figure 2. TDS Levels in Snap Lake (From De Beers AEMP 2010, 2011)

Relative to the TDS levels in the reference lake (Northeast Lake), the up trend of TDS levels in Snap Lake clearly display the effects of mining operation (see Figure 3). The levels of Calcium and Chloride follow the trend of TDS (see Figure 4).

TDS levels in downstream monitoring station (KING01) showed no change over the years, therefore, the impacts of mining operation on this location may be negligible. The reason is that KING01 is located 25 km downstream of Snap Lake, additional volumes of low-TDS waters from the larger watershed at KING01 provide substantial dilution to inflows sourced from Snap Lake.

Total Dissolve Solids in Snap Lake, Reference Lake and Downstream

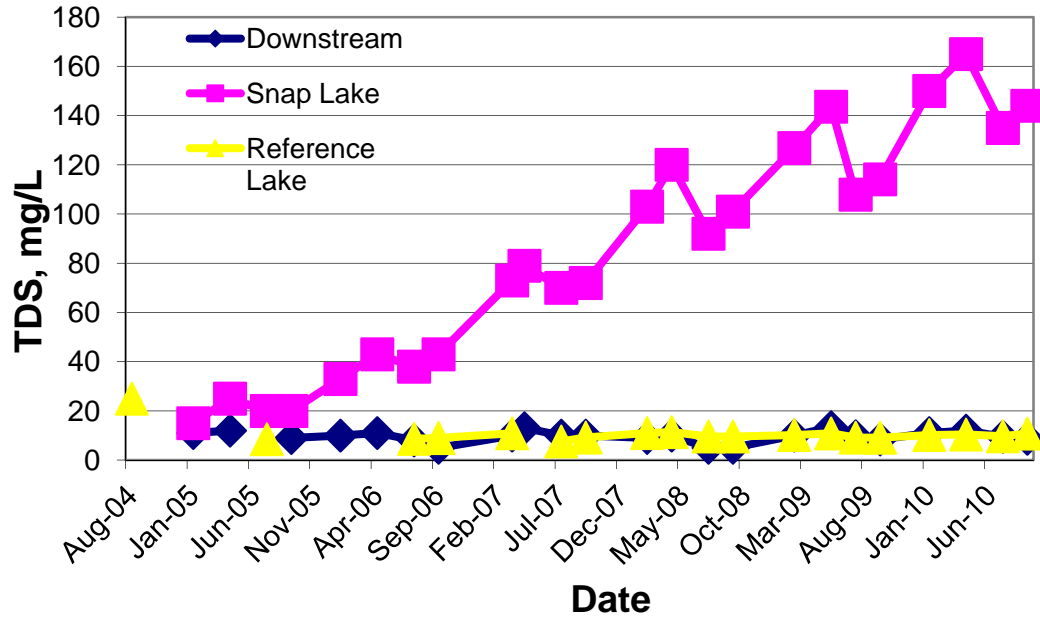


Figure 3. TDS Levels Downstream and in Northeast Lake

TDS, Calcium and Chloride in Snap Lake

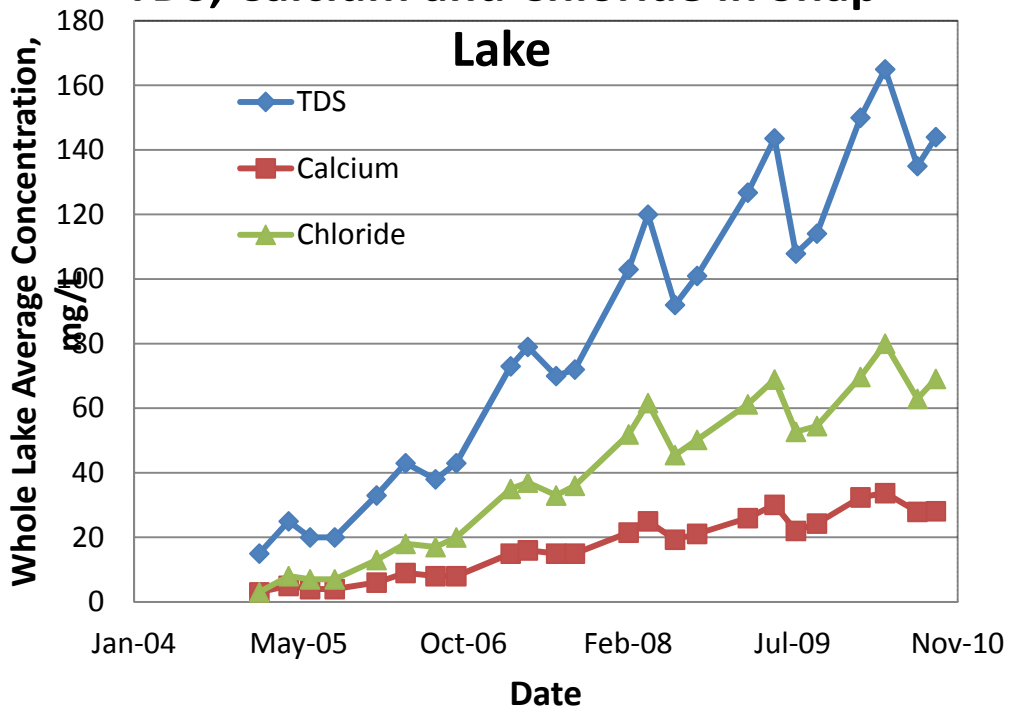


Figure 4. Levels of Calcium and Chloride in Snap Lake

SLEMA Comments

SLEMA has been concerned about the uptrend of TDS, Chloride and Calcium. Results from SLEMA modeling predicted that the current Water Licence limit for TDS (350 mg/L) would be exceeded within the mine life. Modeling results from Golder Associate Limited (Golder, De Beers' consultant) confirmed SLEMA's predictions.

With regards to Fluoride levels in Snap Lake,

- In 2009, approximately one third of Fluoride results exceeded CCME water quality guideline; and
- In 2010, approximately half of Fluoride results exceeded CCME water quality guideline.

Modeling work by Golder indicated that the exceedance will continue through to 2016.

SLEMA recommended that the MVLWB add both Chloride and Fluoride into the list of Water Quality Objectives to be developed for the new Water Licence.

AEMP

Aquatic Effects Monitoring Program (AEMP) is a requirement of Water Licence. The core of the AEMP is monitoring of water quality, plankton, sediment quality, benthic invertebrates, fish tasting and fish health. All monitoring components, with the exception of fish health, are undertaken annually. Fish health monitoring occurs on a five-year cycle.

Plankton is a general term referring to small, usually microscopic organisms that live suspended in the open water. Sediment is the soil particles and rock fragments, on the bottom of water bodies, transported and deposited by the action of water and wind. Benthic invertebrates are living organisms on the bottom of rivers, lakes and ponds.

Based on AEMP 2010 Annual Report, the aquatic effects of the Mine in Snap Lake are briefly summarized as follow:

- Evaluation of spatial and temporal trends in sediment quality did not provide clear evidence of an effect on Snap Lake sediments in areas exposed to treated effluent.
- The 2010 plankton and benthic invertebrate monitoring programs show trends of slight nutrient enrichment effects to Snap Lake, which are consistent with EAR predictions and are not expected to result in adverse effects to aquatic life in Snap Lake.

- In general, fish from Snap Lake were in good overall health.
- The 2010 monitoring results demonstrated that the AEMP is able to detect subtle changes in early warning indicators, and allows evaluation of the environmental consequence of changes by comparing them to the EAR predictions and relevant effects benchmarks.

Hydrology

De Beers submitted the Streamflow and Lake Elevation Monitoring Program 2010 Annual Report (Hydrology 2010) in June 2011. The results indicated that water levels and streamflows in 2010 were low, compared to previous years, and Snap Lake water levels exhibited similar increases and decreases as other monitored lakes (see Figure 5 and 6). As a result, the impact of the Mine activities on lake elevation remains small.

SLEMA Comments

No concerns are raised.

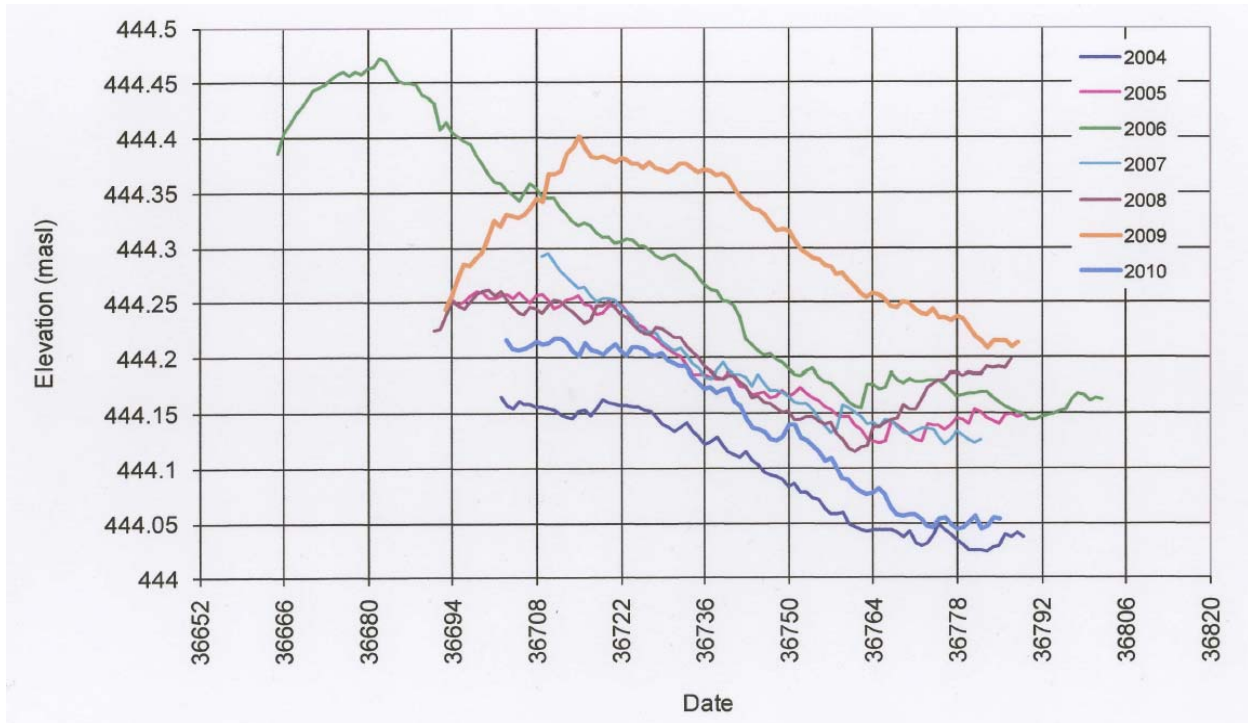


Figure 5. Snap Lake Water Elevations (From De Beers Hydrology 2010, 2011)



m = metres.

Figure 6. Surveyed Water Elevations for Selected Lakes near the Snap Lake Mine, Relative to September 2005 (From De Beers Hydrology 2010, 2011)

North Pile

The North Pile Waste Rock and Processed Kimberlite Storage Facility (North Pile) is the surface storage facility for waste rock and processed kimberlite (PK, the waste material and water mixture that is left over after the mill removes the diamonds) produced during the operation of the Mine. The North Pile is located to the west of the Plant Site as shown in Photo 1. The North Pile will be developed in three cells in the following order:

1. Starter Cell; Berm Raise;
2. East Cell; and
3. West Cell.

The Starter Cell is reaching its full capacity, and the East Cell will receive PK paste in 2012.

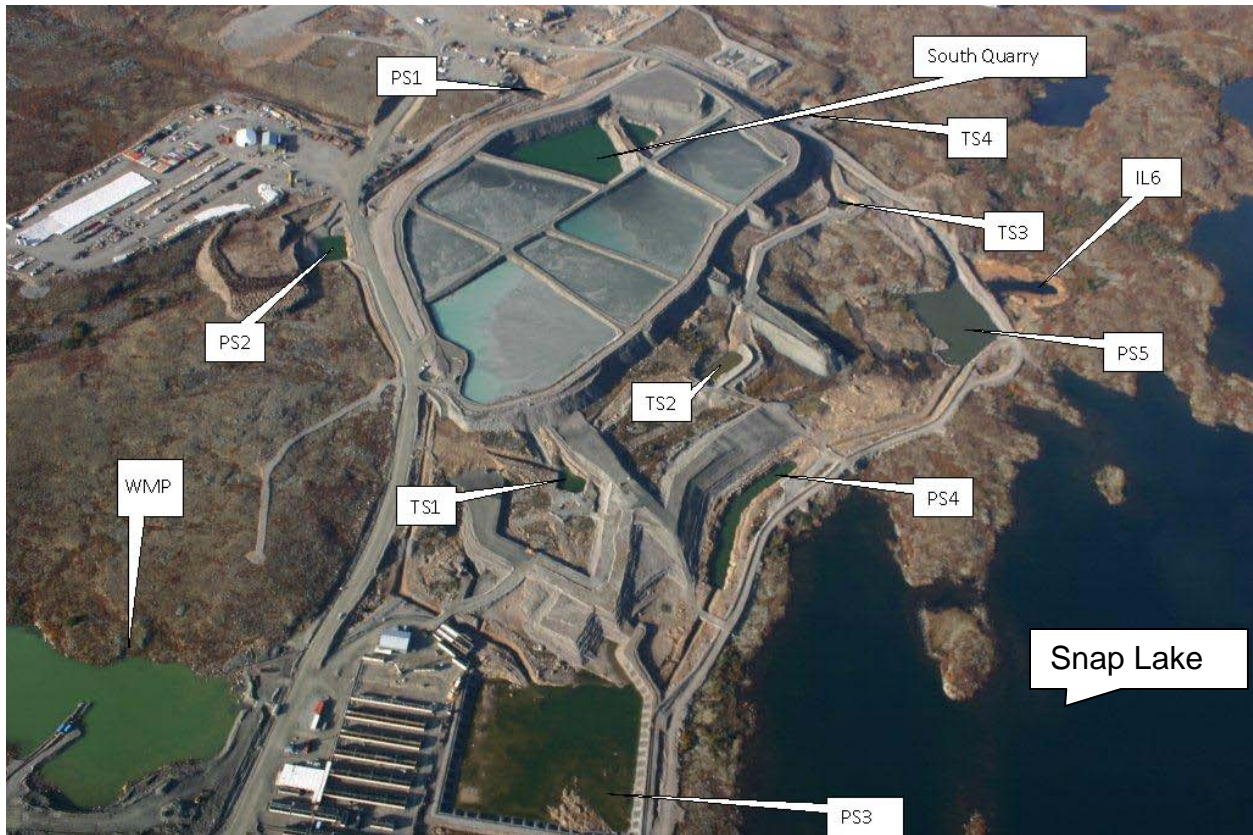


Photo 2. Locations of Sumps within the North Pile

The East Cell is only 50 meters away from the lakeshore (see Photo 2). In 2009 SLEMA wrote two letters to the MVLWB, expressing that it was uncomfortable with the proximity of the PK deposition area to the northwest arm of Snap Lake. In SLEMA's opinion, the record of past spills in the Starter Cell (see Table 1) justifies augmented risk assessment and management. 6 spills occurred within the footprint of the Starter Cell from 2006 to 2010. Two spills from the East Cell to Snap Lake took place in 2011. SLEMA remains concerned about the risk of contaminated water spilling from the East Cell to Snap Lake.

SLEMA Comments

SLEMA recommends more stringent requirements in the new Water Licence for the North Pile operation, especially monitoring of water level in the sumps and collection ditches, and water pumping from the sumps to the WMP.

Table 1. Spills within the Footprint of the North Pile (Starter Cell and East Cell)

Spill #	Date	Spill Amount	Location	Cause
2006-291	Jul. 22	200 m ³ , surface water	Near Temporary Sump #1 (TS1), Starter Cell	Ruptured discharge pipe due to increased pressure
2006-300	Aug. 1	200 m ³ , water	Near TS1, Starter Cell	Ruptured discharge pipe
2007-217	May 21	10 m ³ , surface runoff	Near TS2, Starter Cell	Punch lock fitting detached from the hose
2009-005	Jan. 6	20 m ³ , process water	TS3, Starter Cell	Water level within the sump rose to beyond the designed capacity, water draining through the roadway to the tundra
2009-479	Oct. 19	438 m ³ , process water	Near Permanent Sump #2, Starter Cell	Frozen pipeline, water seeping under the road to the East Cell footprint
2010-458	Dec. 10	110 m ³ , process water	TS4, Starter Cell	Water pushed out through the Starter Cell berm entering TS4 and into the diversion ditch across the access road along with the north side of TS4
2011-391	Oct. 2	126 m ³ , North Pile runoff	Perimeter Sump #3 (PS3), East Cell	Water flowed from the base of the tote road directly adjacent to PS3 in the direction of Snap Lake. visible flow towards Snap Lake was measured at 0.13 m/s.
2011-398	Oct. 11		East Cell Drainage	Visible pooling was observed outside of the containment structures

Acid Rock Drainage

The Snap Lake Mine uses quarry rock for site construction, and stores waste rock and processed kimberlite in the North Pile. Minerals in the rock (mostly pyrite) react with water and oxygen to produce sulfuric acid. This acid is detrimental to water quality. Acid also leaches toxic metals and introduces them into the environment. Monitoring of acid/alkaline rock drainage (ARD) is required by the Water Licence (MV2001L2-0002).

2010 Acid Rock Drainage (ARD) and Geochemistry Monitoring Report (ARD 2010) was submitted on March 31, 2001 as an appendix of 2010 Water Licence Annual Report

(WLAR 2010). Based on the report, with the exception of rock observed at the Fresh Air Raise (FAR), no visible signs of sulphide oxidation or incipient ARD were observed in rock exposed in rock pads, roads, building foundations, and laydowns during the September 2010 site inspection. The results of geochemical characterization of mine rock samples were consistent with the observed ARD results and trends in mine rock/construction rock geochemistry in the EAR and previous annual reporting periods.

Seepage from the North Pile could result in elevated concentrations of Total Dissolved Solids (TDS), nitrate, nitrite, and ammonia measured in bogs downstream of the Starter Cell of the North Pile. 2010 monitoring results show that at least two stations (Bog TS1 North and Bog TS2 Northeast) were impacted by the Starter Cell.

In addition, there have been occurrences of concentrations of either ammonia or nitrate in the monitoring stations of SNP 02-07 (uncontrolled surface runoff at the Road to Bulk Emulsion Plant) and SNP 02-09 (uncontrolled surface runoff at Emulsion Plant Area) exceeding the discharge criteria (20 mg/L for ammonia or 56 mg/L for nitrate, any grab samples) from 2006 to 2010. Thus, the effects of AN residuals from the former AN pad have been a concern for SLEMA.

SLEMA Comments

SLEMA recommends that De Beers make greater efforts in monitoring these bog stations and SNP stations, and take mitigative measures as needed.

Water Licence Renewal

The current Water Licence will expire April 2012. De Beers submitted the Water Licence Renewal Application on June 8, 2011. Table 2 summarizes the process.

SLEMA Position

De Beers is requesting a 15 year term for the new Water Licence. SLEMA does not support this length of term. SLEMA recommends a term of 5 years for the new Water Licence. Rationale for a short term duration Water Licence are as follows:

- The Fluoride levels will remain higher than CCME guideline till 2016 and the Chloride levels will be above BC guideline in 2016. TDS levels will exceed current Water Licence limit in 2018. These predictions make it inappropriate to grant De Beers a new Water Licence with the term of longer than 6 years.
- Compliance performance of De Beers, with regards to the current Water Licence, presented by the Inspector on September 16, 2011 revealed that De Beers

needs to improve the environmental management, operation and reporting. This also warrants a shorter term for the new Water Licence.

SLEMA encourages the MVLWB to have De Beers demonstrate that it is using the data derived from its Water Licence monitoring to undertake integrated mine site water management, linking mine site practices to environmental outcomes. The new Water Licence should require De Beers to demonstrate it has synthesized the monitoring data to create relevant knowledge to facilitate proactive management decisions and practices.

More detail on SLEMA comments could be found in the Summary Table attached.

Land Use Permit

The Snap Lake Mine's Land Use Permit (LUP, MV2001C0012) expired on May 4, 2011. Six months before the expiry date, De Beers submitted a LUP application. Table 3 summarizes the process.

SLEMA Position

As stated in the SLEMA 2009-2010 Annual Report, "De Beers runs the Snap Lake Diamond Mine in a way that maintains the majority of its environmental commitments". Therefore, SLEMA has no objections to De Beers LUP application.

On February 16, 2011, the Mackenzie Valley Land and Water Board (MVLWB) granted De Beers the Land Use Permit MV2010C0053. The new LUP will expire on February 15, 2016.

Table 2. Water Licence Renewal Process (MV2011L2-0004)

Date	De Beers	MVLWB	Stakeholders
Jun. 8, 2011	Application package submitted		
Jun. 24, 2011		Conformity check, and send the Application and draft Work Plan to stakeholders	
Jul. 4, 2011	Deadline for comments on draft Work Plan		Deadline for comments on draft Work Plan
Jul. 28, 2011			Deadline for comments on the Application
Aug. 12, 2011	Deadline for response to comments		
Sep. 14-16, 2011		Technical Session	
Sep. 27, 2011			Deadline for Information Requests (IRs)
Oct. 11, 2011	Deadline for response to IRs		
Oct. 24, 2011		Technical meeting on harmonization with Fisheries Act Authorization and Adaptive Management	
Nov. 7, 2011			Deadline for Interventions
Nov. 21, 2011	Deadline for response to Interventions		
Nov. 28, 2011		Pre-hearing conference	
Dec. 13-14, 2011		Public Hearing	
Dec. 22, 2011	Public Hearing Undertaking due		Public Hearing Undertaking due
Mid Jan. 2012		Draft Water Licence sent out for review	

Table 3. LUP Application Process (MV2010D0053)

Date	De Beers	MVLWB	Stakeholders
Nov. 5, 2010	Application package submitted		
Nov. 9, 2010		De Beers application incomplete	
Nov. 10, 2010	Supplemental information provided		
Nov. 15, 2010		Stakeholders' comments requested	
Nov. 25, 2010			INAC Inspector requested extension
Nov. 26, 2010		Comment deadline extended to Dec. 10	
Dec. 8-10, 2010			Comments presented
Dec. 16, 2010	Responded to comments		
Dec. 22, 2010		Further study requested	
Dec. 30, 2010		LUP drafted and comments requested	
Jan. 4, 2011			SLEMA requested extension
Jan. 4, 2011		Comment deadline extended to Jan. 19	
Jan. 10, 2011			DKFN requested extension
Jan. 11-19, 2011	Commented on draft LUP		Commented on draft LUP
Jan. 28, 2011	Responded to DKFN Jan. 7 letter		
Feb. 8, 2011			DKFN commented De Beers Jan. 28 letter
Feb. 8, 2011	Provided engagement record with DKFN		
Feb. 16, 2011		LUP MV2010D0053 granted	

Fisheries Authorization

Monitoring and annual reporting of Dissolved Oxygen (DO) and TDS is required under the authority of Fisheries Authorization (SC00196).

2011 DO Monitoring Report and 2011 TDS Monitoring Report were submitted in July 2011. The monitoring results since 2006 confirmed that

- DO concentrations did not appear to have decreased as a result of Mine water discharge,
- TDS concentrations remained below the predicted maximum and Water Licence limit, and
- DO and TDS levels in Snap Lake remained within a healthy range for fish and other aquatic life.

SLEMA Comments

No concerns are raised for the above two reports.

Public Engagement

SLEMA has an open door policy for public requests. Any member of the public can walk into the SLEMA office and request information about the Snap Lake mine. SLEMA maintains a web site with all the agencies comments and some other documents relevant to the project. The web site has a simple to use visual based format. It was designed to be easily navigated and to have current photo galleries of events or tours that have taken place. The website has received an important upgrade this year with it's conversion to a word-press format. This format is a simple user interface that allows the SLEMA staff to update almost any aspect of the website, without the assistance of a web designer. This affords great flexibility and timely updating to the site.

Although SLEMA has not received a great amount of public interest for information, there is often information requests from government employees tasked with monitoring the mine. SLEMA has been able to provide timely information for these requests in a neutral manner. SLEMA also often provides interviews and information to university students and facility members interested in the environmental performance, regulatory requirements or agreements or just general information. SLEMA also communicates

with aboriginal organizations providing information requests or clarification on issues that have arisen.

SLEMA provides a monthly environmental update to an ever expanding audience. The update is like a simplified newsletter in power point form that discusses any issue that has arisen during the previous month. Comments, recommendations and work performed by SLEMA are discussed. Inspection reports, issues or directives made by the mine inspector of the Aboriginal Affairs and Northern Development Canada (AANDC) are covered. Description of De Beers reports or developments is also discussed, including production information and new mine site developments. This document is available to any interested party, and anybody wishing to be included needs only contact SLEMA to be included on the distribution list.

SLEMA has made presentations to the communities that are interested or concerned in the developments at Snap Lake. SLEMA has presented annually to the North Slave Metis Alliance, Yellowknives Dene and Tlicho. SLEMA will be visiting the community of Lutsel K'e in the coming year and is open to invitations from any organization.

Workshops

SLEMA held two wildlife workshops on December 2, 2010 and May 19, 2011. The participants on December 2, 2010 included the SLEMA staff and board, as well as the TK panel members and a representative from De Beers. In the workshop the SLEMA staff presented the Caribou Traditional Knowledge camp that took place in September 2010, for the benefit of the board and elders that were not involved on site at the camp. Caribou was the main topic of discussion as well as future TK camps. Negotiations on how to move ahead with future TK projects were entered. De Beers demanded better methodology, but did promise to run another camp in two to three years time. Some of the comments of the elders were that they wanted to see a larger area of impact for caribou, not be restricted to the area of impact, and for the camp to be moved to reflect the shift in migration of the caribou. The elders also wanted to be involved in more of the wildlife monitoring and to also include youth in the monitoring and the TK camp.

The May 19, 2011 meeting was a continuation of the December 2010 meeting. De Beers presented a comprehensive overview of the wildlife monitoring programs and reviews at Snap Lake. Robert Mulders of Environment and Natural Resources (ENR) also presented hair snagging work done by the department for wolverine and Grizzly. The benefits of the hair snagging as presented were for a greater understanding of the movement and interrelationship with the greater wolverine and grizzly population. De Beers had agreed to do hair-snagging as part of their work on grizzly and wolverine,

although they stopped at identifying the hair visually and did not commit to do a DNA analysis. Robert expressed his desire for De Beers to also perform the DNA analysis. The elders expressed their desire for community involvement in the monitoring and for youth to be involved in programs as well as elders.

Fish Tasting Event 2011

SLEMA was involved as an observer in De Beers annual fish tasting event which took place on September 8, 2011. The participants were as follows.

Tlicho Government

- Eddie Camille & Noel Drybones

Lutsel K'e Dene First Nation

- Madeline Drybones & Ernest Boucher

Yellowknives Dene First Nation

- Mike Francis & Alfred Baillargeon

North Slave Metis Alliance

- Wayne Langenham & Eddie Jones

The event is now regularly held at a site close to the lakeshore near the diffuser. De Beers constructed a gazebo for this and other similar events at this location. Six lake trout were caught all by angling and netting. The fish health was observed by the elders and apart from normal parasites the elders declared the fish to be healthy. The fish were then prepared by boiling and fish were tasted by the participants. The elders declared the fish to taste normal for this type of lake.

Overall the fish tasting event was run well and in accordance with the most important portion of the protocol, which was established between De Beers, SLEMA and DFO. The elders made no protest about the event and appeared to be pleased with the way it was run. The event fulfills part of commitment 42 of the Environmental Agreement (EA) which requires a fish and caribou tasting event. SLEMA is pleased with De Beers continued engagement and the effort it takes to make the fish tasting successful. SLEMA would like to see this same zeal carried over into incorporating traditional knowledge into other aspects of environmental monitoring as well as fulfilling all of commitment 42 of the EA by implementing a caribou tasting event as well.



Photo 3. Eddie Camille is Assessing the Fish



Photo 4. Ernest Boucher and Noel Drybones are Assessing Fish



Photo 5. Noel Drybones is Tasting Fish



Photo 6. Wayne Langenham is Tasting Fish

Assessment of the Mine

De Beers continues to run the Snap Lake Diamond Mine in a way that maintains the majority of its environmental commitments.

There is concern about the management systems in place at the mine site, particularly as they pertain to addressing identified and emerging issues such as Ammonium Nitrate/Fuel Oil (ANFO) management and fixing of a malfunctioning diffuser. In both

cases, the time between problem identification and any action being taken was too long, and even then, actions seem only to happen when issues become serious. It is SLEMA's opinion that current management practices are reactive; not proactive. This creates unnecessary environmental risk. SLEMA encourages De Beers to further improve the site environmental management and practices.

Assessment of Regulators

SLEMA not only monitors the environmental performance of De Beers Snap Lake Diamond Mine, but also the government agencies that regulate the Mine. The regulators remain effective in making sure that De Beers runs the Mine in a way that maintains the majority of its environmental commitments.

Mackenzie Valley Land and Water Board (MVLWB): The MVLWB ran well managed processes for the Land Use Permit Application from 2010 to 2011, and the Water Licence Renewal Application in 2011. SLEMA was pleased when the MVLWB denied the 2010 Mine Reclamation Status Report in response to reviewers' comments.

Aboriginal Affairs and Northern Development Canada (AANDC, after June 2011) or Indian and Northern Affairs Canada (INAC, before May 2011): SLEMA is pleased with the timing and detail of INAC inspections. The INAC inspector has been showing great diligence and initiative, and he produces high quality inspection reports and exchanges ideas with SLEMA board members in meetings. INAC also contributed to the review of the Water Licence renewal application and Land Use Permit application, the review of 2010 Annual Reports of Water Licence, AEMP and Mine Reclamation Status, and the review of the Adaptive Management Plan (AdMP) and the Interim Mine Closure and Reclamation Plan (ICRP).

Department of Fisheries and Oceans (DFO): DFO has been closely monitoring the fish habitat compensation projects at the Mine. DFO also contributed to the review of the AdMP and the ICRP, and the Water Licence renewal application, especially the harmonization of the Fisheries Act Authorization with the Water Licence. DFO staff is helpful in providing reference information such as toxicity testing results of TDS, Fluoride and other pollutants of interest to SLEMA.

Environment Canada (EC): EC contributed to the review of waste management issues, the ICRP and the Water Licence renewal application.

Department of Environment and Natural Resources (ENR/GNWT): ENR contributed to the review of Environmental Agreement Annual Reports, waste management issues and air quality issues, and the Water Licence renewal application.

Overall SLEMA is pleased with the regulators actions and responses in regards to Snap Lake.

Financial Report

Snap Lake Environmental Monitoring Agency

Financial Statements

March 31, 2011

Snap Lake Environmental Monitoring Agency

Financial Statements

March 31, 2011

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Independent Auditor's Report

To the Members of Snap Lake Environmental Monitoring Agency

We have audited the accompanying financial statements of Snap Lake Environmental Monitoring Agency, which comprise the statement of financial position as at March 31, 2011, and the statements of operations, changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Agency's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Snap Lake Environmental Monitoring Agency as at March 31, 2011, and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Yellowknife, Canada
September 23, 2011

Chartered Accountants

Snap Lake Environmental Monitoring Agency

Statement of Operations

For the year ended March 31,	2011	2010
Revenues		
De Beers Canada Mining Inc. (note 3)	\$ 977,010	\$ 484,544
Interest income	605	-
Transferred from deferred revenue	352	20,306
Transferred to deferred revenue (note 3)	(487,133)	(352)
	490,834	504,498
Expenditures		
Accounting	9,505	12,802
Bookkeeping	9,450	9,450
Consulting fees	34,914	19,656
Honorarium	138,274	152,418
Insurance	2,731	2,200
Interest and bank charges	921	957
Office and administration	36,497	36,039
Rent	31,026	26,730
Travel and accommodation	31,772	44,374
Wages and benefits	187,247	196,991
	482,337	501,617
Excess of revenues over expenditures before other item	8,497	2,881
Investment in fixed assets	8,497	2,881
Excess of revenues over expenditures	\$ -	\$ -

Snap Lake Environmental Monitoring Agency

Statement of Changes in Net Assets

For the year ended March 31,	2011	2010
Net assets, beginning of year	\$ 7,690	\$ 8,524
Excess of revenues over expenditures	-	-
	7,690	8,524
Investment in fixed assets	8,497	2,881
Amortization	(6,178)	(3,715)
Net assets, end of year	\$ 10,009	\$ 7,690

Snap Lake Environmental Monitoring Agency

Statement of Financial Position

March 31,	2011	2010
Assets		
Current		
Cash (note 3)	\$ 529,898	\$ 31,593
Prepaid expenses	8,029	5,474
	537,927	37,067
Equipment (note 5)	10,009	7,689
	\$ 547,936	\$ 44,756
Liabilities		
Current		
Accounts payable and accrued liabilities	\$ 50,794	\$ 36,714
Deferred revenue	487,133	352
	537,927	37,066
Net assets		
Investment in fixed assets	10,009	7,690
	\$ 547,936	\$ 44,756

Approved by the members:

_____ Director
_____ Director

Snap Lake Environmental Monitoring Agency**Cash Flows**

For the year ended March 31,	2011	2010
Cash provided by (used for)		
Operating activities		
Excess of revenues over expenditures before other item	\$ 8,497	\$ 2,881
Change in non-cash working capital items		
Prepaid expenses	(2,555)	27,715
Accounts payable and accrued liabilities	14,079	7,823
Deferred revenue	486,781	(504,498)
	<hr/>	<hr/>
	506,802	(466,079)
Investing activity		
Purchase of equipment	(8,497)	(2,881)
	<hr/>	<hr/>
Increase (decrease) in cash	498,305	(468,960)
Cash, beginning of year	31,593	500,553
	<hr/>	<hr/>
Cash, end of year	\$ 529,898	\$ 31,593

Supplemental cash flow information (note 6)

Snap Lake Environmental Monitoring Agency

Notes to the Financial Statements

March 31, 2011

1. Organizational purpose

Snap Lake Environmental Monitoring Agency ("the Agency") is a not-for-profit organization incorporated under the *Societies Act* of the Northwest Territories. It is exempt from income tax under Section 149(1)(l) of the *Income Tax Act*.

The mission of the Agency is to oversee environmental management of the De Beers Snap Lake Diamond Project.

The Agency was incorporated and commenced operations on December 10, 2004.

2. Significant accounting policies

The following is a summary of the significant accounting policies used by management in the preparation of these financial statements.

(a) Financial instruments – recognition and measurement

Section 3855 requires that all financial assets and financial liabilities be measured at fair value on initial recognition except for certain related party transactions. Measurement in subsequent periods depends on whether the financial asset or liability has been classified as held-for-trading, available-for-sale, held-to-maturity, loans and receivables or other liabilities.

Financial instruments classified as held-for-trading are subsequently measured at fair value and unrealised gains and losses are included in net income in the period in which they arise. Cash has been classified as held-for-trading.

Available-for-sale assets are those non-derivative financial assets that are designated as available-for-sale or are not classified as held-for-trading, held-to-maturity, or loans and receivables. Available-for-sale assets are subsequently measured at fair value with unrealised gains and losses recorded in other comprehensive income until realized, at which time they will be recognized in net income. No assets have been classified as available-for-sale.

Held to maturity assets are those non-derivative financial assets with fixed or determinable payments and fixed maturity that the Agency has an intention and ability to hold until maturity, excluding those assets that have been classified as held-for-trading, available-for-sale, or loans and receivables. They are subsequently measured at amortized cost using the effective interest method. No assets have been classified as held to maturity.

Financial instruments classified as loans and receivables are non-derivative financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for a promise to repay on a specified date or dates, or on demand, usually with interest. These assets do not include debt securities or assets classified as held-for-trading. They are subsequently measured at amortized cost using the effective interest method.

Accounts payable and accrued liabilities are classified as other financial instruments and are measured at cost or amortized cost.

Snap Lake Environmental Monitoring Agency

Notes to the Financial Statements

March 31, 2011

2. Significant accounting policies (continued)

(b) Equipment

Equipment is recorded at original cost plus any costs of betterment less accumulated amortization and excludes any assets not in current use. Amortization is calculated by the declining balance method at the annual rates set out in note 5.

(c) Investment in fixed assets

Investment in fixed assets represents the accumulated cost of acquired capital assets net of disposals and amortization.

(d) Revenue recognition

The Agency follows the deferral method of accounting. The Agency recognizes unrestricted contributions when they are received or receivable if the amount receivable can be reasonably estimated and its collection is reasonably assured. Restricted contributions are recognized as revenue when the terms and conditions are met. The portion of revenue related to projects not completed at year end is deferred. This will be brought into income as the goods and services are acquired. Contributions for projects for which unexpended funds must be reimbursed at the end of the fiscal year are shown as contributions repayable.

(e) Use of estimates

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date and the reported amounts of revenues and expenses during the year. Actual results could differ from those estimates.

3. Cash, Revenue and Deferred Revenue

Cash increased to \$529,898 in 2011 as a result of receiving \$977,010 in contributions from DeBeers during the year. \$490,000 of the contributions were received in March 2011 which relate to funding for the 2012 fiscal year. The unexpended portion of these funds have been recorded as deferred revenues in the amount of \$487,133. Total revenue for the 2011 fiscal year was \$490,834.

Snap Lake Environmental Monitoring Agency

Notes to the Financial Statements

March 31, 2011

4. Future changes to significant accounting policies

Adoption of accounting standards for not-for-profit organizations in Canada

In December 2010, the CICA Accounting Standards Board released Part III of the CICA Handbook which summarizes accounting standards for not-for-profit organizations in Canada. Implementation of these standards for not-for-profit organizations that choose not to adopt international financial reporting standards is mandatory for fiscal years beginning on or after January 1, 2012, but earlier adoption is permitted. The Agency is reviewing the impact of the adoption of the accounting standards and has not yet made a decision which option to adopt.

5. Equipment

			2011		2010
	Rate	Cost	Accumulated amortization	Net book value	Net book value
Furniture and fixtures	20%	\$ 9,925	\$ 6,569	\$ 3,356	\$ 4,195
Computer equipment	45/55%	19,837	15,817	4,020	3,494
Computer software	100%	15,334	12,701	2,633	-
		\$ 45,096	\$ 35,087	\$ 10,009	\$ 7,689

6. Supplemental cash flow information

	2011	2010
Interest paid	\$ (921)	\$ (957)
Interest received	\$ 605	\$ -

7. Economic dependence

The Agency receives all of its contribution funding from De Beers Canada Mining Inc. Management is of the opinion that operations would be significantly affected if the funding was substantially curtailed or ceased.

8. Commitments

The Agency has entered into a premises lease commencing June 1, 2010 and expiring May 31, 2013 for \$2,500 per month plus GST (year 2 \$2,640 per month, year 3 \$2,700 per month).

Snap Lake Environmental Monitoring Agency

Notes to the Financial Statements

March 31, 2011

9. Comparative figures

The financial statements have been reclassified, where applicable, to conform to the presentation used in the current year.

10. Financial instruments

The following section describes the Agency's financial risk management objectives and policies and the Agency's financial risk exposures.

Credit risk

Credit risk arises from the potential that a counter party will fail to perform its obligations. The Agency is exposed to credit risk from contributors. However, De Beers Canada Mining Inc. typically provides funding in advance which mitigates the risk.

11. Capital disclosures

The Agency's objectives when managing capital are:

- (a) To safeguard the Agency's ability to continue as a going concern, so that it can continue to benefit the Territory.
- (b) To provide an adequate return on investment of capital by providing services commensurate with the level of risk.

The Agency manages the capital structure in the light of changes in economic conditions and the risk characteristics of the underlying assets. The Agency monitors capital on the basis of working capital. Working capital is calculated as current assets minus current liabilities.

Summary of SLEMA Comments from 2010 to 2011

The comments and recommendations for those documents reviewed by SLEMA from 2010 to 2011 are summarized as follow.

Summary Table of SLEMA Comments from 2010 to 2011

Date	Addressee	Concern	Subject	Comment	Recommendation	Feedback/Response
10/18/2011	MVLWB		WL Renewal	<p>The Fluoride levels will remain higher than CCME guideline till 2016, the Chloride levels will be above BC guideline in 2016, and the TDS levels will exceed current Water Licence limit in 2018.</p> <p>The whole lake average approach may not be good enough for the protection of aquatic life in Snap Lake, especially for the aquatic community around the diffuser.</p> <p>The East Cell is very close to the lakeshore. If any of the spills in the Starter Cell would occur in the East Cell, there might be seepage with high levels of ammonia, nitrate and other contaminants entering into Snap Lake.</p>	<p>MVLWB to add both Chloride and Fluoride into the list of WQOs to be developed and consider BC guideline for Chloride and CCME guideline for Fluoride during the development.</p> <p>MVLWB to add SNP 02-20 into the list of compliance points.</p> <p>MVLWB to have more stringent requirements on the North Pile operation, in the new Water Licence.</p>	

			<p>The Starter Cell contains large amount of water that is not expected before.</p> <p>The success of the cleanup of the AN Pad is to be demonstrated.</p> <p>The predictions on TDS, Chloride and Fluoride make it inappropriate to grant De Beers a new Water Licence with the term of longer than 6 years. Compliance performance of De Beers revealed that De Beers needs to improve the environmental management, operation and reporting. This also warrants a shorter term for the new Water Licence.</p>	<p>MVLWB to require De Beers to conduct a special study or risk assessment on the deposition of slurry into the Starter Cell in the new Water Licence.</p> <p>MVLWB to require De Beers taking confirmatory soil samples for any sites at the mine after reclamation.</p> <p>A term of 5 years for the new Water Licence is recommended.</p> <p>The MVLWB to request a special study for the new diffuser recently replaced.</p> <p>The MVLWB to require the submission of electronic raw data for Water Licence.</p> <p>The MVLWB to retain the term or condition about incorporation of Traditional Knowledge into the environmental management.</p>	
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Summary of SLEMA Comments from 2010 to 2011

Date	Addressee	Concern	Subject	Comment	Recommendation	Feedback/Response
06/13/2011	MVLWB		AdMP	<p>Some of the action levels lack in supporting data or information, and some are questionable.</p> <ul style="list-style-type: none"> • Action level for Chloride (from the British Columbia water quality guideline), in the 2004 AdMP, was removed. • Action levels for the issues of Uncertainty in Lake Mixing and Density Stratification, and Nutrient Enrichment of Snap Lake partly depend on the modeling update efforts made during the period of 2010 to 2011. However, the modeling results are not presented in the AdMP. • Water licence limits are used as action levels for the issues of Uncertainty in Lake Mixing and Density Stratification, and Increase in Total Suspended Solids. That is questionable, because it involves compliance issue. • The effects threshold for Calcium appears not to be provided, and the diffuser mixing zone not defined either. • No specific action levels are provided for the issue of Nutrient Enrichment of Snap Lake. 	De Beers to address the issues and provide explanation and/or further details via correspondence or in the upcoming Monitoring Response Plan.	MVLWB accepted the AdMP on August 18, 2011

Summary of SLEMA Comments from 2010 to 2011

Date	Addressee	Concern	Subject	Comment	Recommendation	Feedback/ Response
06/01/ 2011	MVLWB		ICRP	<p>The submission looks like a draft, and major revision is needed.</p> <p>Some of the reclamation objectives are not well defined because they look like reclamation tasks/activities.</p> <p>There is only one TK item about eskers incorporated into Section 3.2.2.3 of the Plan, and more efforts about TK should be made by De Beers.</p> <p>In addition to the North Pile, the following areas should be considered as the potential targets of progressive reclamation and should be described in the Plan.</p> <ul style="list-style-type: none"> • Paste backfill to the underground, • Decommissioning of the construction camp, • Remediation of PAG sites, • Reclamation of the AN pad. <p>It is stated in Section 5.3.2.1 (page 58) that the seepage collection system and a water treatment plant will continue to be operated until such time as the quality of the seepage and runoff water is confirmed to be suitable for direct untreated discharge. However, Task#48 in Figure 20 (page 89) states that the Water Treatment Plant will be demolished in November 2030. This possibly indicates a conflict of schedule.</p> <p>The figures of the North Pile do not show the current progressive reclamation practices, and they must be updated.</p>	<p>De Beers to clearly define the hierarchy of goal and objectives system for closure and reclamation.</p> <p>De Beers to further refine the site specific objectives.</p>	

Summary of SLEMA Comments from 2010 to 2011

Date	Addressee	Concern	Subject	Comment	Recommendation	Feedback/ Response
05/27/ 2011	MVLWB		WLAR 2010 AEMP 2010	<p>Overall, WLAR 2010 is of good quality, and presents reasonable details on water related activities.</p> <p>ARD 2010 In general, the submission is adequate and meets the annual ARD reporting requirement of the Water Licence (MV2001L2-0002). SLEMA requests detailed discussion about the issue, especially the explanation of the elevated ammonia concentrations at the base of the sump at the former AN pad.</p> <p>Site Inspection 2010 In general, this submission is adequate and meets the reporting requirement of geotechnical and geochemical inspection for the Mine site. SLEMA supports those recommendations about the North Pile monitoring and PK paste deposition schedule. SLEMA requests further details about the spill investigation and related future mitigation measures for Spill #2010-458.</p> <p>AEMP 2010 The concern on elevated fluoride levels in Snap Lake, raised by SLEMA last year, will remain until De Beers provides further evidence. SLEMA requests that De Beers provide a report for the results of the 2010 Fish Tasting Program.</p>	<p>ARD 2010 De Beers to make greater efforts in monitoring those recently established stations, due to the proximity of their locations to Snap Lake, e.g. increasing sampling frequency.</p> <p>Site Inspection 2010 MVLWB to resume SNP 02-03 monitoring station.</p>	

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03/18/2011	MVLWB		Reclamation 2010	<p>In general, the submission provides more details than 2009 Annual Report, and fulfills the reporting requirement of reclamation status.</p> <p>De Beers current practice for processed kimberlite (PK) deposition is different from the design of the North Pile, which is intended to contain dry coarse PK and PK paste.</p>	De Beers to present the drawings and/or maps for the North Pile development, progressive PK deposition, location of piezometers and thermistors, location of Permanent Sample Plots (PSPs) to facilitate the description and/or discussion of the North Pile facility, dust control, stability and deformation, temperature and seepage, cryoconcentration, North Pile cover depth, and revegetation	
01/19/2011	De Beers		Hydrology 2009	SLEMA is satisfied with the analysis and discussion about streamflow and lake elevation monitoring in 2009, but believes that the submission only fulfills part of the reporting requirements from the Hydrology Monitoring Program (De Beers 2008).	Site runoff and hydro-geological monitoring results should also be reported.	

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01/19/2011	De Beers		Air Quality 2009	SLEMA would like to acknowledge De Beers efforts in making progress in reducing the sulphur content in diesel fuel and then significantly reducing SO ₂ emissions.	<ul style="list-style-type: none"> • Action plan should be developed for dust control to respond to the elevated dust levels. • De Beers to re-assess the air quality modeling and provide update in 2011. 	
01/19/2011	MVLWB		Draft LUP	<p>SLEMA has no objections to De Beers LUP Application, and welcomes the proposed changes, especially</p> <ul style="list-style-type: none"> • The location of adits, drill sites and sumps farther away from water bodies (from 30 meters to 100 meters), • The requirement of 1 meter of freeboard in all sumps, and • The requirement of De Beers reporting the activities and results of its Wildlife Effects Monitoring Program by March 31 of each year. 		<p>MVLWB granted the Type A Land Use Permit MV2010D0053 (period of 5 years) on February 16, 2011.</p> <p>SLEMA pointed out several typo errors in the LUP on February 25, and MVLWB corrected them in the same day.</p>
12/16/2010	INAC		EAAR 2009	In general, the submission provides reasonable details on the mine site environmental monitoring and management in 2009, and it is acceptable for the purpose of the Environmental Agreement	De Beers to further improve the report presentation	INAC found EAAR 2009 to be satisfactory on January 25, 2011

Acronyms

AANDC – Aboriginal Affairs and Northern Development Canada (after June 2011, previous INAC – India and Northern Affairs Canada)

AdMP – Adaptive Management Plan

AN – Ammonia Nitrate

ARD – Acid Rock Drainage

AEMP – Aquatic Effects Monitoring Program

CCME – Canadian Council of Ministers of the Environment

DFO – Department of Fisheries and Oceans

DO – Dissolved Oxygen

EA – Environmental Agreement

EAR – Environmental Assessment Report

EC – Environment Canada

ENR – Environment and Natural Resources (GNWT)

GNWT – Government of the Northwest Territories

INAC – India and Northern Affairs Canada (before May 2011)

LKDFN – Lutsel Ke Dene First Nations

MVLWB – Mackenzie Valley Land and Water Board

NSMA – North Slave Metis Alliance

PK – Processed Kimberlite

SLEMA – Snap Lake Environmental Monitoring Agency

SNP – Surveillance Network Program

TDS – Total Dissolved Solids

TK – Traditional Knowledge

WQO – Water Quality Objective

YKDFN – Yellowknives Dene First Nations