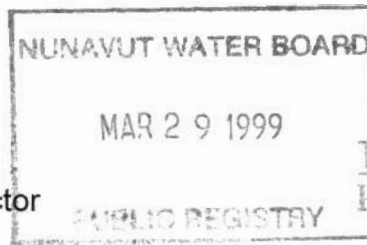




BHP Diamonds Inc.

March 29, 1999

Phillippe di Pizzo, Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NT
X0E 1J0



PAID
Pg. Date 3-29-99

Re: Water Licenses N7L2-1652, and NWB1BOS9801 for the Boston Gold Project Annual Report for 1998.

Dear Mr. di Pizzo;

This submission fulfills the reporting requirements of both Part B (3)(a-i) License N7L2-1652 and Part B (5)(a-o) of Licence NWB1BOS9801 for the Boston Gold Project. Those licences specifies that "the Licensee shall file an annual report with the Board not later than March 31st of the year following the calendar year reported...". Two water licences are involved in the 1998 report, as the Nunavut Water Board issued BHP Diamonds Inc. a new licence for the Boston Gold Project on July 31, 1998. This report is for the calendar year 1998.

A copy of the BHP World Minerals Hope Bay Belt Project 1998 Environmental Baseline Studies Report will be forwarded to you shortly. This data is being collected at a level that would be sufficient for a cumulative impact analysis of BHP Projects in the Hope Bay Belt, if it is decided that a mine or mines are economically feasible. If a mine development project were proposed, the baseline data collected to date would be used in an Environmental Impact Statement prepared for the environmental assessment process.

We trust that this information proves useful to the Board and its staff, and fulfills BHP's commitments and responsibilities under the water license. If you should have questions or comments please contact me at (867) 669-6145.

Sincerely,

Chris Hanks
Acting Environmental Manager

cc. Scott Williams, Rich Rein, Walter Ruzzo, John Witteman, KIA-Lands



BHP - Boston Gold Project Annual Report to the Nunavut Water Board

**Water Licence
NWB1BOS9801**

BHP Diamonds Inc.
Yellowknife, NWT
March 1999

Introduction:

The Annual Report to the Nunavut Water Board is a summary of water use and waste disposal for BHP Diamonds Inc. - Boston Gold Project during 1998 (NWB1BOS9801).

The Boston Gold Bulk Sample Project is located next to Aimaoktak Lake (Spyder Lake), on the Koignuk River 65 kilometers south of Melville Sound.

During the 1996 and 1997, BHP Diamonds Inc. removed an underground bulk sample from Boston to evaluate the feasibility of mining the deposit. In 1998, the site was used as a camp to house exploration crews that were flying out to evaluate other mineral claims in the southern end of the Hope Bay Volcanic Belt. No underground mining or crushing of ore on the surface was undertaken in 1998.

Ona Okiok Titikkat ovani Nunavutmot Emalikiyiinot naitolioktait emaknik atutikhat ovalo ekkakovikhamotlo okoa BHP Diamonds Inc. Ona Boston Gold Project oyagakhiokvikhak Aimaokatakmi 1998 (NWB1BOS9801).

Ona Boston Gold Oyagaknik Ehivgiogakhanik Aolaktitainiaktot ovani haniani Aimaokatak Tahikmi, ovani Koignuk Kugakmi 65 kilometers hivoani Melville Sound.

Talvani ovani 1996 ovanilo 1997-mi, BHP Diamonds Inc. aolaktivaktot oyakanik golkagiakhaita ehivgioktakhanik Aimaokatakmingaktonik ema naonaiyakhogit emakak oyakiviniakhanik. Ovani 1998-mi, tamna nuna atoktaovaktok tupiakvioplani oyagakhioktinit allat nappakohiktoiyunit hivoani Kapihiliktup. Taya nunap atanongangitot oyagakhiokvikmik naliak oyakivikiviiot kangani nunap kanganit ehivgiokhikafoktot 1998-mi.

Annual Report as per Requirements of Part B – Section 5 (a-o) of NWB1BOS9801

The license requires submittal of the following information:

- a) *The monthly and annual quantities in cubic metres of water pumped from Aimaoktak (Spyder) Lake at SNP station 1652-1a:*

Metered Water Intake at Station 1652-1a Aimaoktak Lake (Spyder Lake)

	Month Volume (m ³)
March (1998)	139
April	210
May	330
June	205
July	206
August	67
1,157 Total volume pumped from Aimaoktak L. (1998)	

- b) *The monthly annual quantities in cubic metres, of fresh water obtained from Aimaoktak (Spyder) Lake at SNP Station 1652 –1b:*

No water was pumped from Aimaoktak Lake using intake 1652-1b in 1998.

- c) *The monthly and annual quantities in cubic metres of mine water pumped from underground:*

There was no discharge of mine water from Station 1652-2 in 1998.

- d) *A summary of any construction work, modification and major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures;*

Beyond routine maintenance no major modifications were made to either the water or waste systems. Maintenance included repair of the chlorinator and the temporary relocation of SNP - 3 to allow the treatment of spill NWT 98-115 with sewage. SNP – 5 was added to the programme to monitor water entering Aimaoktak Lake during the treatment of 98-115.

Sludge was pumped down once and deposited in a lined sump on site in excess of 100m from high water mark.

- e) *Tabular summaries of all data generated under the Surveillance Network Program:*

1998 Water Analysis Results for Treated Sewage Effluent discharged on Land Station 1652-3. (Laboratory analysis related to the Boston Water Licence was conducted by Analytical Service Laboratories Ltd. (ASL), 1988 triumph Street, Vancouver, BC V5L 1K5.)

	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98
Sample Criteria						
Fecal Coliform (MPN per 100 ml)	160,000	2,400,000	<2	50	500,000	NA
Total Suspended Solids (mg/l)	20	57	187	24	21	NA
Oil and Grease	28	26	<34	8	<5	NA
Biochemical Oxygen Demand- BOD-5 (mg/l)	86	190	136	26	<5	NA
PH	6.97	7	7.45	6.94	7.04	NA

By the time, the August 1998 water sample was taken, the camp had been shut down and there was no flow from the sewage discharge line on to the tundra.

1998 Water Analysis Results at the Point where Sewage effluent enters Aimaoktak Lake Station 1652-4

	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98
Sample Criteria						
Fecal Coliform (MPN per 100 ml)	NA	NA	NA	<2	<2	<1
Total Suspended Solids (mg/l)	NA	NA	NA	1	2	20
Oil and Grease	NA	NA	NA	5	<5	<1
Biochemical Oxygen Demand- BOD-5 (mg/l)	NA	NA	NA	<5	<5	NA
pH	NA	NA	NA	6.9	7.04	6.72

Station 1652-4 at the edge of Spyder Lake, became ice free in mid-June.

- f) *A summary of exploration and development activities as they relate to water use and waste disposal;*

Boston Camp was used as a base for exploration crews that flew out to other claims in the south end of the Hope Bay Belt. No exploration work was undertaken at Boston in 1998.

- g) *A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;*

The current footprint of the Boston Gold Bulk Sample site is 5.3 hectares.

A cache of barrels containing diesel fuel was relocated from the tundra next to the Boston camp pad, onto the pad. Rows of drums are stacked 2 high barrels high. The rows of barrels in the new cache are separated to ease the monitoring and management of the cache.

A plan was filed with the NWB for the rehabilitation of spill 98-115, which resulted from leaking barrel bungs in the old cache. The rehabilitation actions are on going.

Rehabilitation work for spills 98-092, 98-102, and 98-103 are still in progress. Final remedial work will be done during the 1999 season and is subject to inspection by KIA and/ or DIAND.

A site-wide clean up was done at the Boston Camp in 1998. Materials were sorted and stacked on the pad in preparation for transportation to a suitable site.

Drums of containing hydrocarbon-stained soils from spill remediation will be tested during the summer of 1999 to determine if the material is in excess of GNWT-RWED guidelines for industrial sites. On going remediation of small spills will continue this year.

Site scale remediation will not occur unless a decision is made to abandon the camp.

- h) *A summary of any studies requested by the Board that relate to waste disposal, water use, or reclamation, and a brief description of any future studies planned;*

Under the terms of Licence NWB1BOS9801 the following studies were prepared in 1998 or will be prepared in 1999:

- *Discussion Paper on the Adequacy of Existing Baseline Data for Cumulative Effects Assessment* was prepared by BHP for KIA and NIRB in April of 1998. KIA provided a copy to the NWB.
- *Sewage Effluent Remediation of Hydrocarbon Stained Soils BHP – Boston Gold Project Spill NWT 98-115* was submitted to the NWB in September of 1998;
- *Acid Rock Drainage Characterization Boston Property (Waste Rock) – Final Report* was submitted to the NWB in February of 1999.
- *The 1998 Environmental Data Report* will be submitted to the NWB by early April 1998;
- *Summary Report on the Construction and Operation of the Stickleback Lake Outlet Weir* is due in December of 1999.

- g) A list of any unauthorized discharges;

Four unauthorized discharges occurred at the Boston site in 1999. These are summarized as follows:

NWT 98-092 - is located on the Boston work pad near the maintenance shop. The spigot on a small tank of oil was broken during snow removal. An area of 6 m² was affected. Clean up was initiated by placing an absorbent dam along the edge of the pad to catch material leaching through the pad. The spill was dug out. Hydrocarbon stained material was sealed into 45-gallon drums. Work on this spill is continuing in 1999 to ensure that it is fully reclaimed.

NWT 98-102 - is a spill of about 40 gallons of motor oil that leaked from a compressor over the winter of 1997/1998. The spill was discovered when the snow melted in June of 1998. An area of about 100 m² was affected. Containment dykes were placed along the edge of the pad. The core of the spill was excavated. Water was used to flush through the crushed rock pad and then collected with absorbents. Remediation work on this spill is continuing through 1999.

NWT 98-103 - 40 gallons of diesel over flowed during the transfer of fuel from 45-gallon drums to a day tank at the power plant. An area of 40 m² was affected.

Hydrocarbon stained crushed rock was excavated from the pad and sealed in 45-gallon drums. A new pump was installed and the berm around the day tank was repaired to prevent a reoccurrence of this type.

NWT 98-115 – consists of a number of small spots of hydrocarbon stained soil located on the tundra in the area of the old barrel cache next to the Boston pad. A detailed plan for remediation was approved by the NWB in 1998.

All hydrocarbon stained material that was excavated and stored in sealed 45-gallon drums will be tested for TPH in 1999. Materials that do not meet the GNWT/RWED guidelines for industrial sites will be treated in a land farm that will be constructed on the Boston pad.

These spills were reported to the Spill Line, NWB and KIA promptly upon discovery and clean ups were initiated immediately. KIA plans to inspect the spill sites in 1999.

h) *An outline of any spill training or communications exercises carried out:*

An orientation is held for new employees, which includes environmental awareness and an introduction to Water Licence and Land Use Permit requirements. Spill response training was provided at the Boston and Windy Camps in June of 1998. BHP plans to provide for spill response training in 1999.

k) *Any revisions to the approved Spill Contingency Plan, QA/QC Plan, Waste Rock Disposal Plan, and A&R Plan:*

The following plans were revised and resubmitted to the NWB under the terms of NWB1BOS9801 in September of 1998:

- *Exploration and Bulk Sampling Program Waste Rock Disposal Plan – NWB1BOS9801;*
- *Abandonment and Restoration Plan;*
- *Laboratory and Field QA/QC Plan; and*
- *Spill Contingency Plan.*

l) *A brief description of follow-up action taken to address concerns detailed in inspection and/or compliance reports:*

BHP continues to respond promptly to recommendations in inspection reports or requests for information by regulatory agencies (DIAND, KIA). BHP is not aware of any outstanding inspection issues, with the exception of closure of spills for which remediation is ongoing.

On August 20, 1997 Nunavut Water Board permitted BHP to construct a weir at the outflow of Stickleback Lake (Permit No. NWB4WEI). The weir was installed in late August 1997 to measure the freshet in 1998. Data from the 1998 study will be included in the *1998 Environmental Baseline Data Report*. The final report for the weir is due in December of 1999.

- m) *A public consultation/participation report describing consultations with local organizations and the residents of the nearby communities:*

The latest formal community meetings took place in November of 1997. The uncertainty concerning the future of the Hope Bay Belt Project, through most of 1998, caused BHP to postpone formal community consultation. BHP plans to hold community meetings in Omingmuktuk and Cambridge Bay in mid-1999. BHP continues to try and maximize the opportunities for local employment and contract services with Inuit owned companies.

- n) *Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported:*

None

- o) *An executive summary in terms understandable to the general public and translated into Inuktitut of all plans reports, or studies conducted under this licence.*

BHP provided Inuktitut abstracts for reports previously submitted under the Water Licence to the NWB in February of 1999.