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(BHPB & Diavik)

Reference/File Number: Water Licence W2009L2-0001 - Amendment of MV2003L2-0013 (Type "A")

Licensee: BHP Billiton Diamonds Inc.

Wek'èezhìi Land and Water Board (WLWB)

REASONS FOR DECISION

Issued pursuant to Section 26
of the *Northwest Territories Waters Act*, R.S.C. 1992, c.39

BACKGROUND AND REGULATORY HISTORY

On April 2nd, 2008, the Wek'èezhìi Land and Water Board (WLWB or the Board) received BHP Billiton's (BHPB) renewal application (the Application) for Water Licence MV2001L2-0008 for the Sable, Pigeon and Beartooth Development (the SPB Licence). The renewed Water Licence was required to enable BHP Billiton Diamonds Inc. (BHPB) to continue mining the Sable, Pigeon and Beartooth kimberlite pipes located within the EKATI claim block.

Board Staff deemed the Application complete on April 9, 2008.

Exemption from Preliminary Screening

BHPB's renewal application included a request for an exemption from preliminary screening pursuant to Schedule 1 (section 2), Part 1, Paragraph 2 of the *Exemption List Regulations* made pursuant to subsection 143(1) of the *Mackenzie Valley Resource Management Act* (MVRMA).

These regulations specify that a development is exempt from preliminary screening when:

A development, or a part thereof, for which renewal of a permit, licence or authorization is requested that:

- a) Has not been modified; and

- b) Has fulfilled the requirements of the environmental assessment process established by the MVRMA, CEAA or the Environmental Assessment Review Process Guidelines Order.

The WLWB requested comments on BHPB's request for exemption from Preliminary Screening from reviewers by May 16, 2008. No comments were received from any reviewers, although several parties requested clarification of BHPB's request. The Lutselk'e Dene First Nation (LKDFN) corresponded with the Board indicating that they had no concerns as long as the development had not been modified.

The Board met on May 23, 2008 and approved BHP Billiton's request for exemption from Preliminary Screening for the Sable, Pigeon, and Beartooth water licence renewal.

Decision to Amalgamate

Following receipt of the Application the Board received a request from three federal government departments¹, Environment and Natural Resources (ENR) - Government of the Northwest Territories and the Independent Environmental Monitoring Agency (IEMA) to amalgamate the SPB licence with the type "A" licence held by BHPB for its main operations at the EKATI mine site licence MV2003L2-0013 the Main Licence). The Board's decision, including a description of the process undertaken by the Board to reach its decision on the amalgamation request is set out in the Board's Reason's for Decision dated October 3, 2008 and in the Board's directive issued September 24, 2008 (the Amalgamation Directive).

In summary, the Board decided to amalgamate BHPB's two Licences relating to the development of the Main EKATI Mine Site (currently licence MV2003L2-0013) and the Sable, Pigeon and Beartooth Development (currently licence MV2001L2-0008). The Board initiated this process on its own motion pursuant to section 18(1)(b)(iii) of the *Northwest Territories Waters Act* (NWTWA). The amalgamation has been effected by amending the Main Licence to include conditions relating to the Sable, Pigeon and Beartooth Development.

The Board's amalgamation directive restricted the amalgamation process so that there would be no changes to the scope described in either the Main Licence or the SPB Licence. The scope sections of the two licences have been set out in two separate paragraphs in the amalgamated Licence. In addition, the Board directed that the only changes to the Main Licence which would be considered by the Board during the amalgamation process were those which were necessary to harmonize language, timelines and actions necessary for an amalgamated Licence.

Following the issuance of the Board's amalgamation decision a work plan was issued describing the process to review the Application and develop the amended (amalgamated) licence.

¹ Indian and Northern Affairs Canada (INAC), Environment Canada (EC) and the Department of Fisheries and Oceans (DFO).

Amalgamation/Renewal Process

The Board requested initial technical comments related to the substance of the Application to be submitted by August 1, 2008. Comments were received from the North Slave Metis Alliance (NSMA), LKDFN, IEMA, INAC, EC and DFO.

BHPB responded to these comments on August 29, 2008.

In order to facilitate an efficient and technically thorough review process the Board hosted a Technical Session to discuss reviewer comments on the Application on November 4 and 5, 2008. This session was attended by a number of reviewing agencies².

The Technical Session provided an opportunity for open discussion of the Application and reviewers initial comments. Most of this discussion focussed on the effluent quality criteria (EQC) found in the licences. Following completion of the Technical Session, BHPB committed to provide further information in response to technical issues raised. Board staff issued an information request to the company outlining this information requirement on November 7, 2008. A deadline of January 16, 2009 was set for BHPB to submit this information.

BHPB submitted additional information on January 16, 2009. This information was distributed to the BHPB Distribution list.

The Board recognizes and appreciates that substantial effort was made by BHPB to develop and provide this information package, as well as to address many of the other concerns and provide responses to information requests made by the reviewers and the Board throughout the review process of the Application.

Public Hearing

Notice of the public hearing was published in accordance with the requirements of the NWTWA. The Board held a pre-hearing conference on January 30, 2009 to assist potential interveners to better understand the public hearing process and provide clarity on the issues to be discussed at the hearing. The Board set an intervention deadline of February 13, 2009, and the company was provided an opportunity to respond to any interventions filed by the parties.

Written Interventions were submitted by INAC, NSMA and IEMA. EC and DFO provided a joint submission.

The public hearing was held in Behchoko on March 4 and 5, 2009. Each of the interveners and BHPB presented their interventions and all parties were able to ask questions of the company and other interveners. Board members, staff, technical support and counsel also questioned the company and interveners.

²BHPB, ENR, DFO, INAC, EC, IEMA, Yellowknives Dene First Nation (YKDFN), LDFN, Tliche Government (TG), WLWB Staff, technical support and legal counsel

Hearing Undertakings

During the public hearing two separate undertakings were requested by the Board.

Both related to the development of EQC.

The first undertaking came in response to questions from Board staff and involved further clarification on the model BHPB used to predict concentrations of waste in Two Rock Sedimentation Pond during operations. This additional information was submitted by BHPB on March 26, 2009 and distributed to all parties on March 27, 2009.

On April 17, 2009, Board staff sent a list of questions to BHPB intended to clarify Undertaking #1. On April 24, 2009, a teleconference was held with staff and consultants from the Board and BHPB. The parties to the proceeding were advised of the call in advance. None chose to participate. During the call, BHPB's consultants answered each of the Board staff's questions. These answers were later provided in writing and placed on the record for the proceeding. Board staff's main goal in requesting the Undertaking was to ensure all of the assumptions used in the model were understood in order to confirm that the BHPB would be able to achieve the EQC being recommended for Ammonia, Zinc and Nitrate.

The second undertaking was given by INAC in response to questions from Board staff and is set out below;

“Barry Zajdlik from INAC to provide information as to what increases in nitrate have resulted in demonstrable [imp]acts in the receiving environment with respect to phytoplankton biomass” (John Donihee, WLWB Legal Counsel, Transcript Public hearing, Behchoko, March 5, 2009, page 51)

On March 10, 2009 BHPB wrote to the Board objecting to the undertaking on the basis that it would elicit new evidence and violate the rules of procedural fairness. BHPB stated that:

“...INAC had put no evidence before the Board to substantiate the request for an EQC on nitrate. Therefore the undertaking is speculative in nature and for the purposes of assisting the Board with establishing a new EQC for nitrate even though no evidence supporting such an EQC was presented prior to or at the Hearing.”(BHPB Letter to the Board, March 10, 2009)

The Board met on March 19, 2009 and considered BHPB's objection and provided a response to the company and reviewers in a letter dated March 20, 2009. The Board ruled as follows:

“The Board can, and will when it deems it appropriate, request additional information of the proponent or any party to ensure our decisions are based on the best available information. If such information is considered new evidence, the Board develops processes that are procedurally fair and efficient to ensure all parties have the opportunity to review and comment on the evidence.

In this case, the Board has reviewed the record and decided that it can proceed to a decision with the evidence it has already received. It is therefore not necessary for INAC to complete the undertaking requested by the Board Staff for this proceeding. The Board appreciates INAC's offer of assistance, but on balance, the Board does not consider the additional information about the effects of nitrate to be necessary at this time."(Board Letter to BHPB March 19, 2009)

All correspondence relating to both undertakings were placed on the Public Registry.

The Development of the Amalgamated (Amended) Licence

On April 1, 2009, following the closing of the record, the Board met to discuss and provide direction to Board staff on the development of the Amended Licence. The Board provided specific direction to staff on a number of issues raised during the hearing process.

Board staff developed a draft Amended Licence (the Draft) for distribution and review following the April 1, 2009 Board meeting. The Draft was based on the Board's directive to produce a licence which would include all of the EKATI Diamond Mine operations under one licence, but without changing the scope of either of the previous licences or making any substantive changes to the terms and conditions of the Main Licence.

The Draft prepared by Board staff brought the two licences together by amending necessary sections of the Main Licence to include terms and conditions that would allow for the mining of the Sable, Pigeon and Beartooth pits. Changes to the conditions for Sable, Pigeon and Beartooth pits were made based on evidence presented at the hearing and through the review process for the Application.

In many places where similar conditions existed in both the Main and SPB Licences, they were combined. In most instances this was possible without any modification of existing terms and conditions; however in some cases some minor modification of the Main or SPB Licence conditions was required. Where there was no consistency between the Main Licence and SPB Licence, the wording from the Main Licence was generally adopted. In some cases, the wording of the Main Licence was modified to accommodate amalgamation. Where important language or conditions were required specifically to accommodate unique aspects of the Sable, Pigeon and Beartooth Development, stand alone conditions or sections were included in the Draft.

A draft (combined) Surveillance Network Program (the Combined SNP) was also developed.

Board staff developed three explanatory tables to accompany the Draft:

1. Table of DRAFT BHPB Amalgamated Licence – April 27, 2009 which outlined each clause from the Draft Licence and indicated the existing clause it was derived from in each, or both the MAIN and SPB Licences.

2. Table of Conditions from SPB Licence that are not being included in the Amended Licence – April 27, 2009 which lists all of the conditions from the SPB Licence that were not included in the amended Draft.

3. Table of DRAFT Changes to BHPB Surveillance Network Program - April 27, 2009 which lists all the changes to the SNP that were incorporated into the Draft Licence.

Comments on the Draft

The Draft, the Combined SNP and the explanatory tables were distributed to reviewers and BHPB for review on April 27, 2009. Comments were requested from reviewers by May 18, 2009 and from the company on May 29, 2009. In the cover letter, Board staff also requested comment on a number of additional changes that could be considered but were, in staff's view, outside the scope of the Board's initial Amalgamation Directive. These changes would affect the Main Licence but were suggested only to improve clarity and consistency in the Draft.

Comments on the Draft, Combined SNP and the additional proposed changes were received from BHPB, the IEMA, INAC and ENR.

Board staff reviewed these submissions and revised the Draft based on these comments (the Revised Draft). The explanatory tables were updated to include all reviewer and company comments, as well as Board staff recommendations.

The Board met on June 19, 2009 and reviewed the Draft, comments received on the Draft and the Revised Draft and the explanatory tables. The Board's decision on specific issues raised in relation to the wording of licence terms and conditions has been also captured in the updated tables which are attached as appendices to these Reasons for Decision.

Licence Numbering

In order to ensure clarity the Board has decided to renumber the amalgamated licence. The approved Amended Licence will operate under the file number W2009L2-0001.

BOARD DECISION

The Board has decided to issue Water Licence W2009L2-0001 (the Amended Licence) subject to the conditions set out therein. The Board's Reasons for Decision are elaborated below under the headings contained in the Licence. The Licence contains the terms and conditions that the Board feels are necessary to protect the environment, conserve the water resources of the Wekèezhii and provide appropriate safeguards in respect of the Licensee's use of waters and deposit of wastes.

REQUIREMENTS OF SECTION 14 OF THE NWTWA

Existing Licensees

With respect to paragraph 14(4)(a) of the NWTWA, the Board is satisfied that granting the Amended Licence to the Licensee will not adversely affect, in a significant way, any existing Licensee, providing the conditions of the Amended Licence are met. There are no applicants with precedence.

Existing Water Users

Of the parties to this proceeding only the NSMA has raised questions about compensation for the effects of the BHPB use of water under the Amended Licence. In its letter of August 6, 2008 and again in its hearing intervention dated February 13, 2009 NSMA asserted a right to receive adequate compensation for BHPB's interference with NSMA's existing rights as land owners, land occupiers and existing water users.

In the Board's view the paragraph 14(4)(b) of the NWTWA does impose an onus on an applicant for a water licence to address compensation claims and to ensure that valid claims are resolved. In the absence of such a resolution, the Board is required to ensure that adequate compensation is paid, where appropriate, before a licence can be issued. BHPB did not pay compensation to NSMA in response to its claims. Is this then a situation where the Board should order compensation?

The Board has decided that it is not.

A compensation claimant must first be one of the classes of persons listed in subparagraphs (i) to (viii) in 14(4)(b). The Board recognizes that NSMA, which is incorporated as a society under NWT law, speaks on behalf of its members but NSMA itself is a legal, not a real person. Moreover, despite BHPB's onus under ss.14(4)(b), NSMA must present sufficient evidence to support its claim. This means that it must at least show that it qualifies to make a claim and also that it suffered or will suffer some kind of measurable damages.

The NSMA has filed no evidence at all to prove that it was or is a land owner in an area that would be affected by this water licence. Nor did it file evidence that it occupies land or that it is an existing water user, even assuming that a society could do so. In the absence of any such evidence the Board is not in a position to find that NSMA qualifies for compensation.

We note that when questioned in the hearing, the NSMA representative, Ms. Grieve, could provide no evidence of actual damage or loss suffered by NSMA. It appears to the Board that the NSMA claim was intended to ensure that the public record in this proceeding reflected their concerns and to act as a place holder against possible future claims:

“MR. JOHN DONIHEE:

John Donihee again. So it -- I guess what I'm taking from that, Ms. Grieve, is that you don't have any kind of firm estimate to offer right now but that at some time in the future you're reserving the right to come forward, you know, as part of a Board process and put some kind of an estimate forward to the Board.

Is that -- is that how you're trying to approach this?

MS. CHERYLE GRIEVE (sic):

Yes. I'm just trying to fulfill my duty to assert our rights and get them on the public record rather than to foreclose our options.” (Transcript Public hearing, Behchoko, March 5, 2009, pages 103-104)

Considering this evidence the Board is of the view that the NSMA has not made out a case for a compensation payment in relation to this water licence renewal. The Board has determined that the NSMA has neither proven that it is eligible for compensation nor that any specific damages have or might occur.

Effluent Quality Criteria (EQC)

The setting of EQC was a subject of considerable discussion during the public hearing and in the review process of the Application. As is discussed below (see *Part G: Conditions Applying to Waste Disposal – Effluent Quality Criteria for the Sable Development*) the principles that a company, reviewers, communities and the Board may use as a basis to develop EQC can and have varied. During the public hearing, all parties agreed that EQC should be set with the goal of protecting the environment, however, the Board heard several different ideas on what exactly “protective of the environment” meant. For example, some parties believed that the environment was adequately protected as long as the receiving water quality was safe for aquatic life and human health (a use-protection approach); others believed that the goal was to avoid any degradation of receiving water quality (a non-degradation approach). A best achievable technology approach was also discussed which would see EQC being set on the basis of available treatment technologies. Each of these approaches could be considered by the Board in establishing EQC.

The WLWB is of the opinion that a policy, clearly describing the guiding principles and objectives for setting EQC, is required. The development of such a policy could not take place in the context of a proceeding like this. Such a policy would require consultation with companies, reviewing agencies and communities. Implementation of such a policy would likely require the development of specific guidelines on, for example, the development of water quality objectives, initial dilution zones, collection of baseline data, waste management plans etc.

The Board notes that one of the Working Groups established under the “Standard Procedures and Consistency” initiative being undertaken by the Land and Water Boards of

the Mackenzie Valley is specifically addressing this issue and working to develop a “Water and Effluent Management Policy”. The WLWB is fully supportive of this work.

In the meantime, the Board must make a decision based on the evidence at hand. While several parties argued against the ability of the current Sable EQC to protect the environment, no party brought forward specific evidence that would compel the Board to direct a full review of the EQC at this time. However, this does not preclude a review of the EQC if specific evidence suggests the current EQC are not sufficiently protective. At all times, the Board is aware of its responsibility to balance the proponent’s need for ongoing operational certainty with the collective need to protect the environment.

The accompanying terms and conditions in the Amended Licence provide a number of measures to ensure the protection of the aquatic environment, and the Board is confident that the EQC, accompanied by these measures in the Amended Licence, will protect the receiving waters and that the utilization of water resources authorized in the Amended Licence will provide optimum benefits to residents of Wek’èezhii and all Canadians. Specific reasons for the decisions made in respect to EQC’s are discussed in detail below in the section titled “*Part G: Conditions Applying to Waste Disposal*”.

Financial Responsibility of the Licensee

The Board must satisfy itself of the financial responsibility of the Licensee under paragraph 14(4)(d) of the NWTWA before it can issue the Amended Licence. The Board is satisfied that BHPB is capable of meeting the reclamation and other obligations set out in the MVRMA, NWTWA, and the Amended Licence. BHPB has consistently maintained the financial security required by the Main and SPB Licences.

REQUIREMENTS OF SUBSECTION 15(2) OF THE NWTWA

With respect to subsection 15(2) of the NWTWA, the Board must minimize any adverse effects the operation may have on other Licensees, users, depositors, owners, occupiers, or other rights holders that have interests in the water management area in which the licenced operation is located.

The regulatory process followed by the WLWB during the development of the Amended Licence provided interested parties with the opportunity to express their concerns and comments about the development through written submissions and during public hearings. Those concerns and comments were reviewed carefully during the development of the terms and conditions of the Licence. The Board is satisfied that the Licensee’s adherence to the terms and conditions of the Amended Licence will protect any parties who have an interest in the waters surrounding the EKATI development.

WATER LICENCE W2009L2-0001 TERMS AND CONDITIONS

This section of the Reasons for Decision will only discuss those decisions that, in the Board's view, may have a material effect on the contents of the Amended Licence and thus on either the operation of the EKATI Diamond Mine or on the reporting required of BHPB in order to maintain compliance with the licence. The Appendices to these Reasons for Decision provide detail on all changes to the licence. Appendix 1 contains all of the detail necessary to understand the origin of each condition in W2009L2-0001 as well as how the Board responded to reviewer concerns on individual licence conditions. The table in Appendix 2 lists conditions from the SPB Licence that were not used in the Amended Licence with a rationale for each. Appendix 3 details the changes made to the Surveillance Network Program.

Term of the Licence

Due to the fact that the Main Water Licence, MV2003L2-0013, is being amended to accommodate the terms and conditions of the SPB Water Licence, MV2001L2-0008, the term of the new Amended Licence will have an expiry date of August 18, 2013, which maintains the previously set expiration date of the Main Water Licence.

Part A. Scope and Definitions

The existing Scope sections of the Main and SPB Licences have been combined in Part A, Item 1 of the Amended Licence with only a minor revision as noted in Appendix 1. The origins of the definitions in the Amended Licence are described in Appendix 1 and definitions not used from the SPB Licence are listed in Appendix 2. In general, where there was a difference in wording between the SPB and the Main Licence, the definitions from the Main Licence were kept in the Amended Licence. To facilitate amalgamation of the two water licences, definitions for the following were added to the Amended Licence: "Environmental Impact Assessment", "Sable Development" and "Sable, Pigeon and Beartooth Development".

Definition of Receiving Environment:

In the SPB Licence, the term "Receiving Environment" is defined as "the environment that is immediately impacted by discharges, this includes both aquatic and terrestrial environment". This definition is important since it is incorporated into the definition of "Discharge" and, therefore, defines where the effluent quality criteria (as listed in Part G, Item 15) will apply. In its Application for renewal of the SPB Licence, BHPB had requested that the reference to the terrestrial environment be removed from the definition both to be consistent with the Main Licence and because BHPB felt that the land is adequately protected through land leases and land use permits. In the Main Licence, the definition refers to "the natural aquatic environment that receives any deposit or discharge of Waste, Seepage or Minewater from the Project".

Both the NSMA and IEMA opposed the definition change. The NSMA explained that "*all wastes released, whether to water, to land, or to air, will eventually form part of a process*

that may affect water or the use of waters” (NSMA Intervention, Feb. 13, 2009, page 3). IEMA also felt that it was “difficult to see how the terrestrial component can be separated from the aquatic component” (IEMA Intervention, Feb. 13, 2009, page 4). The Board understood that the both the NSMA and IEMA were concerned that the deletion of “terrestrial environment” was imprudent because water or waste that gets onto the land is very likely to eventually enter water. However INAC’s written intervention provided the following clarification:

“It is INAC’s interpretation that any discharge to the environment, specifically, any direct or indirect release of any water or waste to the receiving environment, includes both direct release to the aquatic environment, as well as indirectly through some other medium, such as the terrestrial environment.” (INAC Intervention, Feb. 13, 2009, page 16)

The Board agrees with INAC’s interpretation. Consequently it is appropriate to base the definition of “Receiving Environment” in the Amended Licence on the language of the Main Licence.

Part B: General Conditions

The majority of conditions in this section were similar in both the SPB and Main Licence and the amalgamation process has not resulted in any material changes in the reporting required by BHPB. Further details may be found in Appendices 1 and 2. Section headings were added to Part B for clarity.

Part C: Conditions Applying to Security Deposits

Only the BHPB and INAC submissions directly addressed the amount of security required for the Amended Licence. In the hearing, BHPB indicated that its submissions on security were without prejudice to any position that it might take in relation to the ongoing Interim Closure and Reclamation Plan (ICRP) process where the amount of security necessary for the whole EKATI Diamond Mine will be re-examined. Other parties made submissions about the timing and treatment of the security being held and about the portions which should be allocated to land or water related components of the overall security requirement.

The SPB Licence requires the posting of twenty-two million two hundred twenty five thousand dollars (\$22,225,000.00) in security which INAC confirms is in the Minister’s possession. The breakdown of currently held security is as follows based on Part C Item 1 of the SPB Licence and this is compared to the new estimate of security requirements filed by INAC:

<u>Security Held under Current Licence</u>	<u>Current INAC Estimate</u>
Total Security	\$11,207,555

Water-Related Security	\$14,446,000	\$9,605,386
Land-Related Security	\$7,779,000	\$1,602,169

BHPB accepted, and no other party challenged, the current INAC estimate. The Board reviewed this evidence and accepts it for purposes of the Amended Licence.

More specifically, the INAC evidence recommends that the security should be held in amounts related to the predicted cost of closure and reclamation for each of the pits. The INAC breakdown is as follows. For Beartooth pit, \$4,640,674.00 divided into \$4,325,673.00 water related and \$315,001.00 land related security. For Sable pit \$4,879,149.00 divided into \$4,019,232.00 for water related and \$859,917.00 land related security. For Pigeon pit \$1,687,432.00 divided into \$1,260,481.00 for water related and \$427,251.00 land related security.

The Board accepts this breakdown of security and notes that acceptance of these revised estimates will result in BHPB having too much security filed with the Minister. The Board is of the view that the excess security should be returned to BHPB. The arrangements for this refund of security can be left in the hands of BHPB and INAC.

The water related liability must be secured under the water licence. Beartooth security is already in the Minister's hands. The amount of \$4,325,673.00 must be maintained as water related security for the cleanup of the Beartooth development. Sable and Pigeon pit development has not yet begun. Water related security in the amount of \$4,019,232.00 must be posted with the Board at least 60 days before the commencement of construction activities for the Sable pit. Likewise water related security in the amount of \$1,260,481.00 must be posted 60 days before the commencement of construction activities for the Pigeon pit.

There were submissions filed before the Board suggesting that it might be more convenient for INAC to continue to hold the \$1,602,169.00 in land related security under the BHPB Environmental Agreement. The Board considered this recommendation but has not accepted it. It is the Board's view that the evidence in this proceeding indicates a need for a total of \$11,207,555.00 in security for all liability related to these three pits. The Board has no control over the Environmental Agreement in fact it has no relationship to it at all. We do, however, understand that the security held under that agreement is available for purposes other than simply ensuring closure and reclamation of the Sable Pigeon and Beartooth pits.

In the Board's view, the public interest requires that it ensure that all liabilities are secured. The Board can only do so by use of the water licence and land use permits. The Board is not a party to the Environmental Agreement and has no authority to order any action under that agreement. Consequently, the Board has decided that it will allocate the remaining land related security required over the land use permits necessary for the Sable Pigeon and Beartooth pits.

Part D: Conditions Applying to Water Use

In its intervention, DFO requested the removal of references to Little Lake and Thinner Lake as sources for water withdrawal (Part C, Item 2(b) and (c) of the Main Licence). As evidence, DFO included an email from a BHPB staff member with detailed volume calculations for each lake that showed that if BHPB were to draw the full amount of water allowed under the Main Licence for these lakes in winter conditions (i.e., under ice), it would be in contravention of the DFO guidelines for winter water withdrawal. The email provided by DFO also stated that BHPB was not currently using the lakes as a source of water and, therefore, DFO felt that the removal of those lakes from the Licence should not pose a problem. Despite this evidence, the DFO request was outside the scope of this proceeding as it applied to the Main Licence and not the SPB Licence.

When Board staff drafted the Amended Licence for review, a request was made of BHPB to remove the references to Little and Thinner Lake even though it was part of the Main Licence. BHPB responded that it may still want to withdraw some water from those lakes in the future and preferred to leave them in the Amended Licence. In its Reasons for Decision (October 2008) for the amalgamation of the BHPB water licences, the Board decided that the only changes that would be made to the Main Licence terms and conditions were those necessary to amalgamate BHPB's two Type "A" water licences. In accordance with that directive, the Board has not changed the quantities of water that BHPB is allowed to withdraw from Little and Thinner Lake (Part D, Item 2(f) and (g) of the Amended Licence). However, a change has been made in Part E in relation to this matter; please see discussion below.

Details of minor wording changes made in this section of the Amended Licence can be found in Appendix 1.

Part E: Conditions Applying to Dewatering and Drawdown

Part D, Item 1 of the Main Licence calls for the submission of a Dewatering or Drawdown Plan for each lake with the exception of Grizzly Lake, Little Lake and Thinner Lake. Given the potential problems with water withdrawal from Little Lake and Thinner Lake in winter (as described above), the Board has decided that it will require the submission of a Drawdown Plan for these lakes when and if BHPB should decide to use them in future. In this way, BHPB maintains the option to use water from those lakes but the Board can ensure that the water withdrawal will not harm the aquatic ecosystem of those lakes. Although technically outside of the scope of this proceeding (because the clause is from the Main Licence), the Board is convinced that it should include this requirement in the Amended Licence. The Board is persuaded of the necessity for this requirement because of the evidence which indicates that to allow the company to take the full amount of water originally allowed in the Main Licence, in winter, for Little Lake and Thinner Lake (as per Part E, Item 1 of the Licence) could damage the ecosystems of those lakes.

The SPB Licence contained a condition requiring an "Operation and Management Plan for the Two Rock Sedimentation Pond" (Part E, Items 10-12) but the Board has decided that this condition is unnecessary in the Amended Licence. The information required in that condition will be provided in the Dewatering Plan (required in Part E, Item 1 of the

Amended Licence) and/or in a required update to the Wastewater and Processed Kimberlite Management Plan (Part G, Item 1 of the Amended Licence).

The rest of the conditions in this section were similar in both the SPB and Main Licence with slight changes made to improve licence consistency. Please see Appendices 1 and 2 for details.

Part F: Conditions Applying to Construction

The majority of conditions in this part were similar in both the SPB and Main Licence although the Amended Licence contains some clauses specific to the Sable, Pigeon and Beartooth Development; please see Appendix 1 for details of how the conditions were amalgamated. Appendix 2 lists conditions from the SPB Licence that were deemed as unnecessary because the requirements were covered elsewhere in the Amended Licence.

Part F, Item 12 of the SPB Licence required the submission of drawings for the Pigeon Stream Diversion prior to Construction that would “include the *necessary design requirements to allow the continued passage of fish to the upper watershed, and provide fish habitat including spawning, rearing, forage, nursery and migration, both during and after mining of the Pigeon pipe* and details of measures proposed to prevent degradation of permafrost and/or ice lenses.” In its SPB Renewal Application, BHPB requested that the words in italics above be removed from the condition pointing out that the construction of the Pigeon Stream Diversion is a requirement of a Fisheries Authorization and therefore subject to approval from DFO. IEMA strongly objected to removing the references to fish passage and habitat but gave no specific evidence to support their objection. The Board has reviewed the relevant Fisheries Authorization and believes that it would be a duplicative requirement if the currently worded clause was also included in the Amended Licence. The requirement for the pre-Construction design plans can now be found in Part F, Item 2 with a specific reference to the need for “details of measures proposed to prevent degradation of permafrost and/or ice lenses” stipulated in Part F, Item 2(h).

Part G: Conditions Applying to Waste Disposal

The majority of conditions in this section (with specific exceptions discussed below) were similar in both the SPB and Main Licence although some conditions applying only to the Sable, Pigeon and Beartooth Development have also been included in the Amended Licence; please see Appendix 1 for details of how the conditions were amalgamated. Appendix 2 lists some conditions from the SPB Licence that were deemed as unnecessary because the requirements were covered elsewhere in the Amended Licence.

Effluent Quality Criteria (EQC) for the Sable Development

In its application for renewal of the SPB Licence, BHPB requested that the effluent quality criteria (EQC) in the SPB Licence be replaced with those from the Main Licence with the exception of ammonia (for which BHPB requested an increase). The basis for this request was BHPB’s assertion that:

“BHP Billiton’s management of the EKATI site under the EQCs in the Main licence has been proven over the past ten years to provide good protection to the water and fish.” (BHPB’s SPB Renewal Application, March 2008, page 66)

BHPB included, in the renewal Application, a report that summarized the available biological monitoring data collected downstream of the Long Lake Containment Facility (LLCF) to substantiate its claim that the Main Licence EQC were protective of the environment. However, parties that provided comments on the renewal application, including DFO, EC, INAC, GNWT-ENR, IEMA and the NSMA, did not believe that there was sufficient justification to support the proposed changes to the EQC. Further, EC and INAC recommended that EQC for Molybdenum and Nitrate be added in the renewed SPB Licence.

At the November 2008 Technical Session, BHPB presented evidence that at least some of the EQC in the SPB Licence would likely not be achievable. In response to BHPB’s presentation, parties attending the Technical Session indicated that they were open to re-examining the EQC values and potentially to changing those values as long as they could be assured that the Receiving Environment would be adequately protected. During the Technical Session, parties identified several areas where additional information from BHPB was necessary to inform the re-examination of the EQC in the SPB Licence and these requests were detailed in a letter from Board Staff to BHPB on November 7, 2008.

On January 16, 2009, BHPB submitted an information package (referred to hereafter as the “January 2009 Submission”) to the Board which included a detailed assessment of the SPB EQC for which BHPB had requested changes as well as an assessment of four additional parameters (Nitrate, Molybdenum, Selenium and Chloride) as requested by other parties. On the basis of the analyses detailed in the January 2009 Submission, BHPB requested changes to three of the sixteen existing SPB EQC: Ammonia, Nickel and Zinc.

EQC for Zinc and Ammonia

BHPB proposed EQC for Ammonia and Zinc that they believed were both achievable and protective of the environment. No parties provided alternative values for the Ammonia and Zinc EQC. DFO, EC and IEMA stated that they believed that BHPB’s proposed values seemed reasonable based on the information available and the 10 years of operational data that BHPB used in its calculations. In this context, the Board notes that the proposed average EQC for Zinc is 0.03 mg/L which is equal to the Canadian Council of Ministers of the Environment’s (CCME) guideline value meaning that, with respect to Zinc, the undiluted effluent would not be harmful to aquatic life. BHPB has also presented sufficient evidence that the proposed EQC for Ammonia will not cause Ammonia concentrations in Horseshoe Lake to exceed the CCME guidelines for the protection of aquatic life. Confirmation of the predictions that are the basis of BHPB’s proposed values will occur as part of the Surveillance Network and Aquatic Effects Monitoring Programs.

The Board notes that BHPB evaluated the proposed EQC values for Ammonia and Zinc as adequately protective if they allow for the maintenance of water quality objectives in the receiving environment. In turn, BHPB has chosen water quality objectives that are protective of the environment and human health as defined in the quote below:

“What we do when we protect human beings is we protect all human beings, 100 percent protection of human beings. When we protect the environment, the fish, we are protecting the populations of fish. So the concept here in Horseshoe Lake is that you will still have the trout; you will still have the things they feed on; it will still be a functioning, useful ecosystem”. (Peter Chapman, Consultant for BHPB, Transcript Public Hearing Behchoko, March 4, 2009, page 110)

In its intervention, INAC points out that BHPB’s “use-protection approach”, as described above, is only one of several different approaches that can be used to set EQC including the “non-degradation approach” or the “best available technology approach”. Although INAC brought forward examples of how all of these approaches have been used in the Northwest Territories, it did not submit any specific evidence that would support the use of something other than the use-protection approach for the Sable Pit environment. In fact, upon questioning from Board staff it became clear that there were many different ideas on what “protective of the environment” meant to different people and organizations. As well, there was no clear consensus on how EQC should be set. In the absence of a clear process for setting EQC in general as well as no specific evidence that BHPB’s approach was flawed, the Board has decided to grant BHPB’s request for changes to the EQC values for Zinc and Ammonia (please see Part G, Item 15(d) of the Amended Licence).

EQC for Nickel

Based on models developed by BHPB to predict effluent quality in Two Rock Sedimentation Pond, the company will be unable to meet the current EQC for Nickel. However, at the time of this public hearing, BHPB was unable to propose a new EQC that would be both achievable and meet the water quality objectives the company has proposed for Horseshoe Lake. However, BHPB is confident that further work on its part will allow them to develop an appropriate EQC. Upon cross-examination at the public hearing, BHPB discussed³ some of the work that they plan to do including re-working the models that predict water quality in Two Rock Sedimentation Pond and Horseshoe Lake, as well as determining a site-specific water quality objective for Nickel. BHPB also stated⁴ that it has not finalized the design or final location of the discharge pipe and has not discounted the use of a diffuser that would improve initial mixing within Horseshoe Lake.

BHPB has therefore requested that the current EQC for Nickel be removed from the licence and replaced with a condition requiring BHPB to recommend a suitable Nickel EQC within 18 months of licence issuance. The Board has decided to maintain the current Nickel EQC for two reasons: first, no alternative Nickel EQC was recommended by any party and second, some of the additional work BHPB has proposed to do may lead to the conclusion that the current EQC is achievable. In the Board’s view, the onus is on the proponent to bring forward the appropriate evidence to support a change in an existing EQC value. The Board notes that, currently, BHPB does not plan to discharge from Two Rock Sedimentation Pond until about 2015 so there will be no immediate negative implications for company operations by maintaining this EQC value.

³ Eric Denholm, BHPB, Transcript Public Hearing, Behchoko, March 4, 2009, pages 138-139.

⁴ Marc Wen, Consultant for BHPB, Transcript, Public Hearing, Behchoko, March 4, 2009, pages 77-78.

EQC for Nitrate

Although Nitrate is not currently a regulated parameter in the SPB Licence, BHPB was requested to predict the concentration of Nitrate in Two Rock Sedimentation Pond and determine an EQC if necessary. In its January 2009 Submission, BHPB predicted that the concentration of Nitrate (as $\text{NO}_3\text{-N}$) in Two Rock Sedimentation Pond could reach 13.2 mg/L which, under worst case conditions, would mean that the concentration of Nitrate in Horseshoe Lake would be 2.25 mg/L at a point close (i.e., within 20m) to the discharge point and 1.81 mg/L at the lake outlet. BHPB compared these worst case values with the water quality objective of 4.5 mg/L that they had selected for Nitrate in Horseshoe Lake and concluded that an EQC for Nitrate did not need to be added to the Amended Licence, pointing out also that Nitrate would be monitored through the Surveillance Network Program (SNP) and Aquatic Effects Monitoring Program (AEMP) to ensure the validity of the predictions.

BHPB chose a water quality objective for Nitrate in Horseshoe Lake that was based on the Ideal Performance Standard (IPS) as published by Environment Canada in 2008. INAC challenged this choice, preferring the interim guideline for the protection of aquatic life, set in 2003 by the CCME at 2.93 mg/L. INAC was concerned that the IPS standard for Nitrate (4.7 mg/L) was derived as part of the “National Agri-Environmental Standards Initiative” and might, therefore, reflect what is needed for agricultural waters as opposed to what is appropriate for northern waters. However, the Board’s technical consultant has reviewed the derivation process for the IPS number and determined that it was, in fact, based only on toxicological concerns for all fresh waters and has not been modified to reflect agricultural waters. That knowledge, along with fact that the IPS standard is based on a more thorough and recent data set than the 2003 interim guideline, confirms for the Board that BHPB’s choice of a water quality objective for Nitrate was appropriate.

In its intervention, EC recommended that Nitrate should be a regulated parameter “*to limit the loading of nutrients to the receiving environment and to prevent chronic toxicity associated with Nitrate*” (Anne Wilson, EC, Transcript Public Hearing, Behchoko, March 4, 2009, page 182). INAC agreed. The Board notes that the discharge is predicted to contain Nitrate at levels more than double the water quality objective and concentrations in Horseshoe Lake are predicted to reach around 50% of the water quality objective (greatly exceeding the natural lake concentrations). If Nitrate concentrations in the discharge were to be only slightly higher than predicted in Two Rock Sedimentation Pond, the discharge could be unsafe for aquatic life. Therefore, the Board has decided that there is a need to regulate Nitrate concentrations at the Sable development.

The derivation of a Nitrate EQC was based on the following assumptions: that the appropriate water quality objective for Nitrate in Horseshoe Lake is 4.7 mg/L; that all of the Ammonia in the discharge (at an average concentration of 4 mg/L) would be converted to Nitrate (through natural biological processes); and that worst case mixing conditions may be in effect in Horseshoe Lake (predicted dilution factors under worst case conditions were taken from BHPB’s January 2009 Submission, page 4-1). The EQC for Nitrate (as $\text{NO}_3\text{-N}$) has been set at 20 mg/L (average concentration) and 40 mg/L (maximum grab concentration), which, in the Board’s opinion is both achievable by BHPB at the Sable development and will protect aquatic life in Horseshoe Lake.

EQCs for Chloride, Molybdenum, and Selenium

There are currently no EQC for Chloride, Molybdenum or Selenium in the SPB Licence; however, parties had noted that the concentrations of these three parameters have been increasing in the LLCF and requested, during the November 2008 Technical Sessions, that BHPB investigate the need for additional EQCs that would apply at the Sable Pit Development. In its January 2009 Submission, BHPB provided evidence that the levels of Chloride, Molybdenum and Selenium would be low enough that regulation by EQCs would not be necessary. IEMA agreed with BHPB's submission that no EQC for these three parameters were necessary with the understanding that Chloride will continue to be monitored and a water quality objective developed as part of the Watershed Adaptive Management Plan (WAMP). In its intervention, BHPB included a letter committing to the items requested by IEMA. INAC have also stated that they are comfortable with leaving Chloride to the WAMP. Therefore, the Board has decided not to include EQC for Chloride, Molybdenum or Selenium with respect to the Sable Pit Development.

EQC for Total Petroleum Hydrocarbons

In the SPB Licence, Part G Item 11(d), there was an EQC requirement for Oil & Grease at 3 mg/L. In the renewal application, BHPB had requested replacing the Oil & Grease requirement with a requirement for Total Petroleum Hydrocarbons (TPH) because TPH "*covers a broad range of hydrocarbon residues that might be found in mine Discharges*" (BHPB's SPB Renewal Application, March 2008, page 32). BHPB suggested using the EQC set in the Main Licence of 3 mg/L (average concentration) and 5 mg/L (maximum grab concentration). INAC supported this change and no other party objected. The Board has decided to grant BHPB's request and this can be found in Part G, Item 15(b) of the Amended Licence.

Review of other EQC

Another issue emerged as part of the public hearing: the uncertainty of how protective the current SPB EQC, as set in 2002, are for Horseshoe Lake and the downstream Receiving Environment. This uncertainty rests on evidence that the EQC in the SPB Licence were not developed site-specifically but were instead based on EQC developed for the Diavik Mine:

"The Board imposed effluent quality standards on this licence that are similar to those set in the Diavik Class "A" water licence N7L2-1645 as the Board believes that these standards are achievable with best management practices and will provide for a higher degree of environmental protection for all areas affected by activities that will occur under this Licence." (Mackenzie Valley Land and Water Board, Reasons for Decision for MV2001-L2-0008, Sable, Pigeon, Beartooth Expansion, Sept. 25, 2002)

"As BHP Billiton's receiving environment is different from DDMI's, what may have been appropriate and protective for DDMI may or may not be appropriate or protective for BHPB Billiton." (INAC Intervention, Feb. 13, 2009, page 4)

"The current Sable EQC appear to be based on site-specific technical derivations that were conducted for the Diavik mine, which was licenced shortly

before Sable. Those technical derivations include factors specific to the Diavik mine that do not apply to the Sable site, such as the configuration of Diavik's water management facilities.” (BHPB's Review of EQC for the Sable Site, submitted to the WLWB on Jan. 16, 2009, page 1-3)

“I think the bottom line for DIAND is that we're neither convinced that the EQCs are wrong, nor are we convinced that they're right. We -- we have to do some more work and we're prepared to certainly work closely with BHP on that. The challenge we have is that, as folks have pointed out, the EQCs were initially developed for DIAVIK, a different situation, different context, and then applied in the current licence to Sable, Pigeon, Beartooth. And the work that's necessary to confirm the validity of that transfer hasn't been done. It hasn't been done by DIAND and it hasn't been done by the proponent and it hasn't been done by anybody as far as we can tell, and that needs to be done to provide the assurance that we think is necessary to protect the environmental adequately.” (David Livingstone, INAC, Transcripts Public Hearing, Behchoko, March 5, 2009, page 25)

In its intervention, INAC recommended that a full assessment of the EQC be completed prior to any discharges from the Two Rock Sedimentation Pond (currently scheduled for the summer of 2013 according to BHPB's Life of Mine Plan). DFO and EC supported the idea of accepting the current and proposed EQC on an “interim” basis until all of the EQC could be reviewed when the Amended Licence comes up for renewal in 2013.

BHPB, however, strongly objected to the concept of “interim EQC” stating:

“Certainty in the terms of a water licence, and particularly EQC, is essential to BHP Billiton's ability to design, build and operate the project. Decision-making regarding future developments such as Pigeon and Sable can only be made with the fullest possible knowledge of the terms and conditions that will apply to those developments.” (BHPB's Intervention, Feb. 20, 2009, page 1-1)

The Board has decided that there is not enough evidence at this time to warrant changes to the existing Sable EQC with the exception of Ammonia, Zinc, Nitrate and Total Petroleum Hydrocarbons as discussed above. However, the Board would like to note that, at any time during the term of a water licence, it can and will consider evidence brought forward by parties (including the proponent) on the appropriateness of licence conditions including EQC values. In this context, the Board also wishes to re-iterate the need for a clear and consistent framework for the evaluation and development of EQC values and will support all efforts to do so. The following statement from IEMA seems to summarize the sentiments of several parties at the hearing:

“The Agency encourages both INAC and the Boards to complete this valuable work as quickly as possible in consultation with other parties and hopefully that will make all our lives simpler the next time we have this discussion.” (Laura Johnson, IEMA, Transcript Public Hearing, Behchoko, March 4, 2009, page 169)

Despite the debate over the protectiveness of the current and proposed EQC to Horseshoe Lake, the Board considers it appropriate to grant the licence with the selected EQC for the Sable Development given the number of supporting environmental programs called for in

the licence. Programs such as the Surveillance Network Program, the Aquatic Effects Monitoring Program and the Watershed Adaptive Management Plan are designed to work together to first alert us to any undesirable effects on the environment and then to require an appropriate and active response. It is the responsibility of all parties to ensure the results of these support programs are consistently reviewed to ensure the environment is protected.

Design of the Outfall into Horseshoe Lake

BHPB had originally planned to pipe effluent (that meets the EQC) from Two Rock Sedimentation Pond over a retention dam and into a small, intermittent stream that flows into Horseshoe Lake. During the November 2008 Technical Sessions, several concerns arose about this method of discharge including the possibility of affecting fish habitat in a connecting stream and problems with erosion. In the January 2009 submission, BHPB analyzed several alternative options for discharge from Two Rock to Horseshoe Lake and concluded that the most advantageous approach was to run the discharge through a pipeline from Two Rock Sedimentation Pond directly to the lake bottom in a deeper area of Horseshoe Lake. No parties objected to this proposal however IEMA asked several questions at the public hearing about the details of the final pipeline design and location. BHPB's technical consultant stated that more studies were needed prior to selecting the final end-of-pipe location and IEMA recommended that a requirement for more detailed information about the pipeline design be included in the Licence. The Board agreed and this information requirement is laid out in Part G, Item 21.

Part G, Item 21 also requires the submission of a plume delineation study design to confirm initial effluent mixing in Horseshoe Lake and aid in the assignment of an appropriate SNP sampling location. Part G, Item 22 requires the submission of the results of the plume delineation study and verification of the proposed SNP site.

Part H: Conditions Applying to Modifications

The majority of conditions in this part were similar in both the SPB and Main Licence although there was a minor wording change in Part H, Item 3 which will not have a material effect on the Licence; please see Appendix 1 for details of how the conditions were amalgamated.

Part I: Conditions Applying to Contingency Planning

The majority of conditions in this part were from the Main Licence although there is now a requirement to update the Contingency Plan prior to construction of the Sable and Pigeon Developments. Please see Appendix 1 for details of how the conditions were amalgamated.

The reference in Part I, Item 1 to the NWT Water Board's Guidelines for Contingency Planning January 1987 was updated with INAC's Guidelines for Spill Contingency Planning, 2007. Although this was a change to the Main Licence language, BHPB did not object (BHPB's Response to Draft Amended Licence, May 28, 2009).

A new condition (Part I, Item 7) was added to require BHPB to submit an update to the Adaptive Management Plan to address effects from the Sable Development. The updated Plan should be submitted at least two years prior to discharge from Two Rock Sedimentation Pond to ensure that there is adequate time to review any new threshold values proposed by BHPB.

Part J: Conditions Applying to Aquatic Effects

This part of the Licence details the requirements for the content, implementation, reporting and periodic review of the Aquatic Effects Monitoring Plan (AEMP) for the EKATI Diamond Mine. Similar conditions for the AEMP existed in both the SPB and Main Licence which facilitated the amalgamation; please see Appendix 1 for details of how the conditions were amalgamated and Appendix 2 for the SPB conditions that were deemed as unnecessary.

Only two conditions in the Amended Licence represent changes to the Main Licence that may affect reporting under the AEMP; these are discussed below.

In the SPB licence, there was a requirement for “an evaluation of the contaminant loads associated with dust deposition and the effects that the dust has on the aquatic environment” (Part K, Item 4(i) of the SPB Licence). There was no equivalent clause in the Main Licence, therefore, in the Draft Licence, Board staff modified this clause to read “an evaluation of the contaminant loads associated with Waste resulting from dust deposition, from the Sable Pit Development, to the aquatic environment” (Part J, Item 4(g) of the Draft Licence). However, for consistency in the AEMP, Board staff suggested that Part J, Item 4(g) apply to the entire Project rather than only to the Sable Development. In its response to comments on the Draft Licence, BHPB did not object to this change (see BHPB’s Response to Draft Amended Licence, May 28, 2009) and it has now been incorporated into the Amended Licence. The Board notes that a requirement for dust monitoring as part of the AEMP is already stipulated in the water licence for the Diavik Diamond Mine.

In its application for renewal of the SPB Licence, BHPB requested a change to Part K, Item 4(h) which required that the AEMP contain “an evaluation of the EKATI Mine related cumulative effects on the aquatic environment of Lac de Gras Region”. In the Main Licence, a similar condition existed. BHPB recommended changing that condition to: “*an evaluation of Project-related effects on the receiving environment*” (BHPB’s SPB Renewal Application, March 2008, page 40). BHPB’s rationale for this change was:

“BHP Billiton manages Project-related effects as those are the only effects over which the company has any control and ability to mitigate.” (BHPB’s SPB Renewal Application, March 2008, page 40)

In its intervention, IEMA opposed the wording change, stating that:

“The Agency is of the view that the wording suggested by BHP Billiton does not adequately reflect the need for the Company to measure and understand its contribution to cumulative effects in the area. We acknowledge that cumulative effects are a shared responsibility. But we also believe that BHPB has a

responsibility to monitor the effects it causes, even if others also contribute to the same effects.” (IEMA Intervention, Feb. 13, 2009, page 3)

The Board agreed that the proponent has a responsibility to report on its contribution to regional effects while understanding that the current wording of this condition is difficult to fulfill. In order to accommodate the issues raised and to keep the AEMP consistent for the entire Project, Board staff proposed the following wording for the requirement in the Amended Licence: “an evaluation of the Project-related effects on the Receiving Environment that may contribute to cumulative effects in the region”. In its response to comments on the DRAFT Amended Licence, BHPB fully supported this change and it has now been incorporated into the Amended Licence (Part J, Item 4(i)).

Part K: Conditions Applying to Closure and Reclamation

Conditions describing the required content of an Interim Closure and Reclamation Plan (ICRP) for both the SPB and Main Licence have been captured in the approved “Terms of Reference” for the EKATI ICRP (2006) and in the subsequent ICRP (submitted December 2008) that has been submitted by BHPB. Therefore, the Board saw no need to restate all of those conditions in the Amended Licence. Instead, Part K of the Amended Licence requires updates to the ICRP to be in accordance with the approved Terms of Reference (noting that under Part K, Item 6 revisions to the Terms of Reference or ICRP occur as and when required by the Board). The remaining conditions in Part K of the Amended Licence are necessary for the Board to continue the management of Closure and Reclamation of the EKATI Mine Site.

Other Requirements of the Licence

Conditions Related to Studies from the SPB Licence

Part I, Item 1 of the SPB Licence required BHPB to submit a Terms of Reference for “studies to address the potential of converting the mined-out kimberlite pipes into pit lakes.” This Terms of Reference was submitted by BHPB in October 2004 and approved by the MVLWB in May 2005. In April 2007, the WLWB directed BHPB to merge the tasks outlined in the approved Terms of Reference into the reclamation research section of BHPB’s ICRP so that the pit lake studies could be applied to all of the pits at the EKATI Mine Site rather than just the Sable, Pigeon and Beartooth Pits. This directive was fulfilled by BHPB in the Final Draft ICRP (submitted in December 2008) and the Board considers Part I, Item 1 of the SPB Licence to have been satisfied. In its response to comments on the Draft Amended Licence, IEMA notes (Appendix 2) that not all of the tasks in the approved Terms of Reference were included in the Final Draft ICRP; however, there is a separate process underway for the approval of the ICRP and IEMA’s concerns will be dealt with at that time.

Part I, Item 2 of the SPB Licence required the submission of a tundra soil study to “describe the results of field investigations of tundra soil behaviour and interactions with waste rock run-off”. Although a specific study was not submitted to fulfill this condition, the required information has been and can continue to be collected as part of the Seepage Survey Reports required in Part G, Item 4 of the Amended Licence. Therefore, the Board has

decided not to append the condition for a specific tundra soil study to the Amended Licence. No parties commenting on the Draft Amended Licence objected to this decision. Please see Appendix 2 for more detail.

Part I, Item 3 of the SPB Licence required the determination of “appropriate criteria for regulating Chloride levels within the Sable, Pigeon and Beartooth expansion”. Over the term of the SPB Licence, BHPB has conducted a substantial amount of work on this requirement and made three submissions: a “Tier 1 Ecological Risk Assessment of Chloride” (April 2004), the “Proposed Chloride Discharge Criterion for the Sable Kimberlite Pipe Development” (January 2007), and, most recently, the “Site Specific Water Quality Objective for Chloride” (October 2008). However, an “appropriate criteria for regulating Chloride levels” has not yet been finalized. In the meantime, it became clear during this amalgamation process that, in fact, Chloride is not a contaminant of concern at the Sable Pit Development and, therefore, an EQC for Chloride is not necessary for discharge from Two Rock Sedimentation Pond. The Board notes that levels of Chloride are increasing downstream of the LLCF; however, further work on the establishment of a threshold value for Chloride will continue under the Watershed Adaptive Management Plan (Part I, Item 6 of the Amended Licence) and this threshold will apply site-wide. Further details can be found in Appendix 2.

Management Plan Review Periods

In its application for renewal of the SPB Licence, BHPB requested that the review periods for several plans be shortened; however, specific evidence as to the need for shortening these timeframes was not provided. The Board has decided not to grant specific requests for shortening the review periods specified in the Amended Licence and will continue to strive for completing the review of such plans in as timely a manner as possible.

Surveillance Network Program (SNP)

In the Amended Licence, station locations (SNP Section A) and sampling requirement conditions (SNP Sections B and C) from the SPB Licence have been listed directly below the conditions from the Main Licence. Other sections of the SNP were similar in both licences and the details of how the conditions were amalgamated can be found in Appendix 3. Several minor changes (all noted in Appendix 3) were made to the wording of conditions from the SPB Licence to improve the clarity and administration of the Amended Licence.

A reference to Station 0008-Sa9 has been added to the Amended Licence although the final location of this station will be determined at a later date based on requirements in Part G, Items 21-22. Station 0008-Sa10 has been added, as per a request from BHPB in its renewal Application, to monitor the upstream portion of the Two Rock Sedimentation Pond.

In its renewal Application for the SPB Licence, BHPB also requested that an SNP requirement (section D) for air quality monitoring be deleted. IEMA strongly objected to this request stating that:

“An understanding of the chemical elements contained in/ carried with the air is crucial to understanding the aquatic chemistry at the site, especially

for lakes within dust deposition zones. Without this information, assessing the impact of the project on the environment will be difficult, if not impossible.” (IEMA’s Intervention, Feb. 13, 2009, page 3)

However, no specific evidence linking the air quality monitoring to the deposition of waste to water was provided by any party. The Board has decided not to include the requirement for air quality monitoring in the SNP for the following reasons: 1) BHPB is already required to perform air quality monitoring under the Environmental Agreement; and 2) BHPB has agreed to include dust monitoring (an important component of air quality monitoring) as part of the site-wide AEMP (as per Part J, Item 4(g) of the Amended Licence). If, at a later date, there is specific evidence that airborne emissions from the Project are affecting water quality, parties may bring this forward to the Board for consideration.

CONCLUSION

Subject to the terms and conditions set out in the Licence, and for the reasons expressed herein, the WLWB is of the opinion that the licenced undertaking for the EKATI Diamond Mine can be operated in a manner to ensure the conservation, development and utilization of the water resources of Wek’èezhii for the optimum benefit for all Canadians but in particular for present and future residents of Wek’èezhii.

Signed the 24th day of June 2009 on behalf of the

Wek’èezhii Land and Water Board



Witness
Wek’èezhii Land and Water Board



Ms. Violet Camsell-Blondin, Chair

Acronyms and Defined Terms Used in the Reasons for Decision

Acronym or Defined Term	Definition
AEMP	Aquatic Effects Monitoring Program
Amalgamation Directive	Board directive issued Sept. 23, 2008 to explain the process of amalgamation of the SPB and Main Licences
Amended Licence	W2009L2-0001
Application	The application for renewal of the SPB Licence submitted by BHPB in April 2008
BHPB	BHP Billiton
Board	Wek'èezhii Land and Water Board
CCME	Canadian Council of Ministers of the Environment
DFO	Department of Fisheries and Oceans Canada
Draft	The Draft Amended Licence sent out to reviewers on April 27, 2009
EC	Environment Canada
ENR	Environment and Natural Resources – Government of the Northwest Territories
EQC	Effluent Quality Criteria
ICRP	Interim Closure and Reclamation Plan
IEMA	Independent Environmental Monitoring Agency
INAC	Indian and Northern Affairs Canada
IPS	Ideal Performance Standard
January Submission	2009 Additional information submitted by BHPB on January 16, 2009 in response to
LKDFN	LutselK'e Dene First Nation
LLCF	Long Lake Containment Facility
Main Licence	MV2003L2-0013
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resources Management Act
NSMA	North Slave Metis Association
NWTWA	Northwest Territories Waters Act R.S.C. 1992, c.39
SNP	Surveillance Network Program
SPB Licence	MV2001L2-0008
WAMP	Watershed Adaptive Management Plan
WLWB	Wek'èezhii Land and Water Board

APPENDIX 1: Origin and Explanation of Terms and Conditions for Water Licence W2009L2-0001

Terms and Conditions of the Amended Water Licence (W2009L2-0001) (note that corrections made after review by parties have been left in “track changes” format for clarity)	Corresponding Condition in Main Licence (MV2003L2-0013)	Corresponding Condition in SPB Licence; (MV2001L2-0008)	Notes	Reviewer Comments (IEMA Comments) (INAC Comments) (ENR Comments)	BHP Billiton Comments	WLWB Response
Part A: Scope and Definitions	(“N/A” means “not applicable”)	(“N/A” means “not applicable”)				
1. Scope						
<p>a) This Licence entitles BHP Billiton Diamonds Inc. to divert water from Upper Panda Lake to Kodiak Lake, and to use water and dispose of Waste for the purpose of mining the Panda, Koala, Koala North, Misery and Fox kimberlite pipes and for operating the processing facilities and infrastructure associated with diamond mining within the Koala, Misery, King-Cujo and Desperation-Carrie Watersheds of the Lac de Gras basin, Northwest Territories.</p> <p>This Licence also entitles BHP Billiton Diamonds Inc. to use water, Dewater Sable, Pigeon, and Beartooth Lakes for the purpose of mining, to Drawdown Two Rock Lake, divert Pigeon Stream around the Pigeon pit, pipe water from Bearclaw Lake outflow around Beartooth pit, use water from Ursula and Upper Exeter Lake, deposit Processed Kimberlite into the Beartooth pit for the purpose of creating a pit lake, and dispose of Waste for industrial undertakings in diamond mining and processing, production and associated uses in the Koala, Pigeon and Sable watersheds, Northwest Territories as shown on Figure 6, 8, & 10 of the Class A Water Licence and Land Use Permits supporting documents, submitted August 21, 2001.</p> <p>The activities listed above are to be conducted as described in the Environmental Impact Assessment.</p>	Part A, Item 1(a)	Part A, Item 1(a)	<p>First paragraph exactly as per Main Licence; second paragraph exactly as per SPB Licence.</p> <p>Third paragraph makes reference to newly defined “Environmental Impact Assessment”</p>	<p>Scope (a): This section of the Sable, Pigeon, Beartooth water license (MV2001L2-0008) does not refer to the use of Beartooth pit as a minewater retention pond. INAC understands that a request is currently before the WLWB for approval on this matter. The Board needs to consider this aspect during their deliberations on this matter.</p>	<p>The proposed use of Beartooth Pit is being considered separately by the WLWB as an amendment to the Processed Kimberlite and Waste Management Plan.</p>	<p>Board staff recommendation:</p> <p>The wording of the current scope remain as Board and legal staff believe the option to use Beartooth pit as a minewater retention pond can be accommodated within the current scope of the licence.</p> <p>The use of Beartooth pit as a minewater retention pond will be considered by the Board in the proposed update to the WPKMP submitted by BHP Billiton on December 19, 2008.</p> <p>Board decision: Accept staff recommendation.</p>
<p>b) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of Waste of any type in any waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the <i>Northwest Territories Waters Act</i>, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.</p>	Part A, Item 1(b)	Part A, Item 1(b)	Same condition in both licences.			
<p>c) Compliance with the terms and conditions of this Licence does not relieve the Licensee from</p>	Part A, Item 1(c)	Part A, Item 1(c)	Same condition in			

responsibility from compliance with the requirements of all applicable, Federal, Territorial, Tliche and Municipal legislation.			both licences.			
2. Definitions						
" Acid/Alkaline Rock Drainage (ARD) " means the production of acidic or alkaline leachate, Seepage or drainage from underground workings, ore piles, Waste Rock, Processed Kimberlite, and overburden that can lead to the release of metals to Groundwater or surface water during the life of the mine and after mine closure.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Act " means the <i>Northwest Territories Waters Act</i> .	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Adaptive Management Plan " is a Management Plan that describes a way of managing risks associated with uncertainty and provides a flexible framework for the mitigation measures to be implemented and actions to be taken when specified thresholds are exceeded.	Part A, Item 2	N/A	From Main Licence.			
" Analyst " means an Analyst designated by the Minister under section 35(1) of the Act.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Aquatic Effects Monitoring Program " means a monitoring program designed to determine the short- and long-term effects in the Receiving Environment resulting from the Project; to evaluate the accuracy of impact predictions; to assess the effectiveness of planned impact mitigation measures; and to identify additional impact mitigation measures to reduce or eliminate environmental effects.	Part A, Item 2	Part A, Item 2	Same definition was in both licences but "water environment" has been replaced with the defined term "Receiving Environment". Change will not affect operation under Main Licence.			
" Board " means the Wek'èezhii Land and Water Board established under Section 57.1 of the <i>Mackenzie Valley Resource Management Act</i> .	Part A, Item 2	Part A, Item 2	Both licences referred to the MVLWB and has now been corrected. Change will not affect operation under Main Licence.			
" Coarse Kimberlite Reject Material " is the coarse material, generally between 0.5 mm and 8 mm in diameter, rejected from the process plant after the recoverable diamonds have been extracted.	Part A, Item 2	N/A	From Main Licence.			
" Collection and Settling Ponds " are containment structures used to collect water and/or Waste or to settle solids suspended in Minewater. This definition does not include Sumps, the King Pond Settling Pond, and Collection and Settling Ponds that are adjacent to active mining areas or within an open pit such that all Seepage or overflow would flow into the pit.	Part A, Item 2	N/A	From Main Licence.			
" Contaminated Snow Containment Facility " is the lined area set aside within the Waste Rock Storage Areas for the containment of snow and ice contaminated by hydrocarbons and other products as approved of in the Hydrocarbon-Contaminated Materials Management Plan.	Part A, Item 2	N/A	From Main Licence.			
" Construction " means any activities undertaken to construct or build any components of, or associated with, the development of the Project.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main			

			Licence.			
" Dam Safety Guidelines " means the Canadian Dam Associations (CDA) Dam Safety Guidelines (DSG), January 1999 or subsequent approved editions. The scope and applicability of the DSG referred to in this Licence, is presented in Section 1 of the DSG.	N/A	Part A, Item 2	Reference to this definition only made in the context of SPB Development.			
" Dewatering " means the removal of all water from a natural water body.	Part A, Item 2	Part A, Item 2	Main Licence language used.			
" Discharge " means the direct or indirect release of any water or Waste to the Receiving Environment.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence.			
" Drawdown " means the partial removal of water from a natural water body.	Part A, Item 2	Part A, Item 2	Main Licence language used.			
" Environmental Impact Assessment " means the 1995 Environmental Impact Assessment of the 1994 NWT Diamonds Project Description conducted under the EARP Guidelines Order, or the environmental assessment of Licence application N7L2-1736 conducted under Part 5 of the MVRMA, or both as the context requires.	Part A, Item 2 - Replaces "Environmental Impact Statement"	Part A, Item 2 - Replaces "Environmental Impact Statement"	Necessary for amalgamation of licences; change will not affect operation under Main Licence.			
" Freeboard " means the vertical distance between the water line and the effective water containment crest on the upstream slope of a dam or dyke.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Frozen Core " means a permafrost core comprised of frozen ice-saturated aggregate material and functioning as an impervious barrier to water, Waste or Processed Kimberlite.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Groundwater " means all water below the ground surface.	Part A, Item 2	Part A, Item 2	Main Licence language used.			
" Inspector " means an Inspector designated by the Minister under section 35(1) of the Act.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" King Pond Settling Pond " comprises the basin and associated containment structures as generally described in the application for renewal of Water Licence N7L2-1616 filed on December 12, 2003 and given file number MV2003L2-0013 [see Figure 1.6c in the Mining Industry Questionnaire] or as modified in subsequent plans and/or drawings as approved by the Board.	Part A, Item 2	N/A	From Main Licence			
" Land Farm " comprises the lined, engineered facility designed to contain and treat, using bioremediation, hydrocarbon contaminated sediments and soil with an average diameter less than 4 cm.	Part A, Item 2	N/A	From Main Licence			
" Licensee " means the holder of this Licence.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Long Lake Containment Facility " comprises the basin and containment structures that are designed to contain Processed Kimberlite and other Waste as described in the application for renewal of Water Licence N7L2-1616 filed on December 12, 2003 and given file number MV2003L2-0013 [as shown in Figure 5.2a in the Mining Industry Questionnaire] or as modified in subsequent plans and/or drawings as approved by the Board.	Part A, Item 2	N/A	Main Licence language used.			
" Management Plans " means the specific plans required by the Board under this Water Licence.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence.			
" Maximum Average Concentration " means the running average of any four (4) consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in	Part A, Item 2 - Replaces	Part A, Item 2	Although this changes a			

the "Surveillance Network Program".	"Average concentration"		definition in Part A of the Main Licence, the term "Maximum Average Concentration" is used in Part G, Item 13(a) of Main Licence and is more appropriate. Change will not affect operation under Main Licence.			
" Mine Plan " means the life of mine plan as updated by the Licensee from time to time for sequencing of the development of the Project.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence.			
" Minewater " includes runoff from facilities associated with the Project and all water or Waste pumped or flowing out of any open pit or underground mine.	Part A, Item 2	Part A, Item 2	Main Licence language used.		For clarification, BHP Billiton's understanding of this definition is that it refers exclusively to water or Waste that is "pumped or flowing out of any open pit or underground mine".	Board staff recommendation: Maintain current wording as the definition includes runoff from facilities associated with the Project AND water or Waste pumped or flowing out of any open pit or underground mine. Board decision: Accept staff recommendation.
" Minister " means the Minister of Indian and Northern Affairs Canada.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Modification " means a change made in accordance with approved under Part H of this Licence.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence.			Board staff recommendation: Change made in order to clarify application of Part H of this licence. Board decision: Accept staff recommendation.
" Phase I Tailings Containment Area " comprises the containment basin and the engineered structures designed to contain Processed Kimberlite as described in Drawing Number 11522-1, Sheets 1 and 2, titled "BHP Minerals Canada Ltd. – NWT Diamonds - Phase I Tailings Dam, As Built Plan and As Built Cross Sections" scale 1:100, date stamped on July 28, 1994.	Part A, Item 2	N/A	From Main Licence			
" Pigeon Development " means all of the activities and facilities associated with the Construction,						

operation and decommissioning of the Pigeon pit.						
" Processed Kimberlite " means material rejected from the process plant after the recoverable diamonds have been extracted.	Part A, Item 2	Part A, Item 2	Main Licence language used.			
" Professional Engineer " means a Professional Engineer registered with the Association of Professional Engineers, Geologists, and Geophysicists of the Northwest Territories and whose principal field of specialization is appropriate to the work at hand.	Part A, Item 2	Part A, Item 2 - Replaces "Geotechnical Engineer" and "Engineering Geologist"	Main Licence language used.			
" Project " means the EKATI Diamond Mine operation in its entirety as described in the Environmental Impact Assessment.	Part A, Item 2	Part A, Item 2	New definition incorporating the new term "Environmental Impact Assessments". Required for amalgamation of licences but will not affect operations under Main Licence.			
" Racetrack " means the designated area within the Coarse Kimberlite Reject Material storage area that is used for the disposal of the decanted water or Waste from the Land Farm and the Contaminated Snow Containment Facility, or other sources of Minewater.	Part A, Item 2	N/A	From Main Licence	Racetrack, INAC recommends this definition be removed because this location is covered and is not used as defined.	BHP Billiton has no particular objection to INAC's recommendation; however, the term is used in Part G, Item 4(iv) and a deletion of the definition may cause confusion.	Board staff recommendation: The definition be retained as the term 'Racetrack' is used within the body of the Licence. Board decision: Accept staff recommendation.
" Receiving Environment " means, for the purpose of this Licence, the natural aquatic environment that receives any deposit or Discharge of Waste, including Seepage or Minewater, from the Project.	Part A, Item 2	Part A, Item 2	Main Licence language used.			
" Regulations " are those Regulations promulgated pursuant to section 33 of the Act.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
" Sable Development " means all of the activities and facilities associated with the Construction, operation and decommissioning of the Sable pit.	N/A	N/A	New definition required for amalgamation; does not affect operation under Main Licence.			
" Sable, Pigeon, and Beartooth Development " means all of the activities and facilities associated with the Construction, operation and decommissioning of the Sable, Pigeon and Beartooth pits.	N/A	N/A	New definition required for amalgamation; does not affect operation under Main Licence.			
" Seepage " includes water <u>or Waste</u> that drains through or escapes from any structure designed to contain, withhold, divert or retain water or Waste, including Waste Rock Storage Areas.	Part A, Item 2	N/A	From Main Licence.	INAC recommends the following change to the definition: includes	BHP Billiton has no objections to INAC's recommendation.	Board staff recommendation:

				water "or waste" that drains through or escapes from any structure designed to contain, withhold, divert or retain water or Waste, including Waste Rock Storage Areas."		Accept INAC's recommendation Board decision: Accept staff recommendation.
"Sewage" means all toilet Waste and greywater.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
"Sewage Treatment Facilities" means the facilities that are designed to contain and treat Sewage.	Part A, Item 2	Part A, Item 2 - Replaces "Sewage Disposal Facilities"	Main Licence language used.			
"Sump" is a storage facility constructed to temporarily collect, hold or transfer water and/or Waste within the Project.	Part A, Item 2	N/A	From Main Licence.			
"Two Rock Sedimentation Pond" means the containment structure that is designed to contain the Minewater from the Sable pit during operation, drainage from the Waste Rock Storage Area and the turbid water and solids fraction of the lake sediments after lake Dewatering and stripping as described in the document titled "Preliminary Design of Water Control Structures for Sable, Pigeon and Beartooth Pit Developments" prepared by EBA Engineering Consultants Ltd., April, 2000.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence.			
"Unauthorized Discharge" is a release or Discharge of any water or Waste not authorized under this Licence.	Part A, Item 2	N/A	From Main Licence.			
"Waste" means Waste as defined by section 2 of the Act.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
"Waste Rock" means all unprocessed rock materials that are produced as a result of mining operations.	Part A, Item 2	Part A, Item 2	Same definition in both licences.			
"Waste Rock Storage Area" means the facilities where Waste Rock and Coarse Kimberlite Reject Materials, <u>and till</u> are deposited in accordance with this Licence.	Part A, Item 2 - Replaces "Waste Rock Storage Facilities"	Part A, Item 2 - Replaces "Waste Rock Storage Facilities"	In the body of the licences and in reports submitted by the company, the term "Waste Rock Storage Area" is used instead of "Waste Rock Storage Facility". Change in definition will not affect operation under Main Licence.		This wording has removed the words "and till" which are in the current SPB Licence. For clarity in the licence BHP Billiton suggests reinserting "and till" for this definition.	Board staff recommendation: Accept BHP Billiton's recommendation Board decision: Accept staff recommendation.
"Water Supply Facilities - Grizzly Lake" comprises the area and associated intake infrastructure at Grizzly Lake as identified in Drawing Number D-U150-51-9-0009 titled, "H.A. Simons Ltd., NWT Diamonds Project, Water System, Fresh Water Supply - Plans and Sections", dated July 29, 1996.	Part A, Item 2	N/A	From Main Licence.			
"Water Supply Facilities - Little Lake" comprises the area and associated intake infrastructure at Little Lake.	Part A, Item 2	N/A	From Main Licence.	It is INAC's understanding that Little Lake and Thinner	To clarify, although BHP Billiton has not yet taken water from this	Board staff recommendation:

				Lake are not to be used for water withdrawal and can therefore be removed.	facility, future mining at Misery Pit may need to use water from Little Lake. Removal of this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation.	To retain any references to Little Lake and Thinner Lake within the licence as BHPB may decide to use these lakes in the future. Board decision: Accept staff recommendation.
"Water Supply Facilities - Thinner Lake Misery Camp" comprises the area and associated intake infrastructure at Thinner Lake Misery Camp as identified in Drawing Number 230320-73-210-07, revision A, scale 1:500, titled "Potable Water Pumphouse Layout", dated October 26, 1995.	Part A, Item 2	N/A	From Main Licence.	It is INAC's understanding that Little Lake and Thinner Lake are not to be used for water withdrawal and can therefore be removed.	To clarify, although BHP Billiton has not taken water from this facility, future mining at Misery Pit may need to use water from Thinner Lake. Removal of this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation.	Board staff recommendation: To retain any references to Little Lake and Thinner Lake within the licence as BHPB may decide to use these lakes in the future. Board decision: Accept staff recommendation.
"Zone S" means the area within the Waste Rock Storage Areas designated for containment of rock/sediments with an average diameter greater than 4 cm that have been contaminated by hydrocarbons.	Part A, Item 2	N/A	From Main Licence.			
"Zone of Influence" means an area within which there are positive or negative effects as a result of the Project.	N/A	Part A, Item 2	Addition of this definition will not affect operation under Main Licence			
Part B: General Conditions						
1. The Licensee shall file an Annual Report with the Board no later than March 31st of the year following the calendar year reported which shall contain the following information:	Part B, Item 9	Part B, Item 1	Same condition in both licences.			
<u>Measuring and Reporting on Water and Waste:</u>						
a) the monthly and annual quantities in cubic metres of water obtained from Grizzly Lake, Little Lake, Thinner Lake (Misery Camp) and Two Rock Lake or Two Rock Sedimentation Pond;	Part B, Item 9(a)	Part B, Item 1(a)	Same condition in both licences.	ENR points out that this definition would have to be modified if the Board decided to remove all references to Little and Thinner lake	To clarify, although BHP Billiton has not taken water from Little or Thinner lakes, future mining at Misery Pit may need to use water from these lakes. Removal of this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation.	Board staff recommendation: To retain any references to Little Lake and Thinner Lake within the licence as BHPB may decide to use these lakes in the future. Board decision: Accept staff

						recommendation.
b) the monthly elevations of water during open water for Grizzly Lake, Little Lake, Thinner Lake Upper Panda Lake, Cell E of the Long Lake Containment Facility, the King Pond Settling Pond and the Two Rock Sedimentation Pond;	Part B, Item 9(b)	Part B, Item 1(b)	Same condition in both licences.	ENR points out that this definition would have to be modified if the Board decided to remove all references to Little and Thinner lake	To clarify, although BHP Billiton has not taken water from Little or Thinner lakes, future mining at Misery Pit may need to use water from these lakes. Removal of Little and Thinner lakes from this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation.	Board staff recommendation: To retain any references to Little Lake and Thinner Lake within the licence as BHPB may decide to use these lakes in the future. Board decision: Accept staff recommendation.
c) the monthly and total quantities in cubic metres of water Dewatered from Sable, Pigeon, and Two Rock Lakes;	N/A	Part B, Item 1(c)	Addition that only affects SPB Development.			
d) the monthly and annual quantities in cubic metres of each Waste deposited into the Long Lake Containment Facility, King Pond Settling Pond, Phase 1 Tailings Containment Area and Two Rock Sedimentation Pond;	Part B, Item 9(d)	Part B, Item 1(d)	Same condition in both licences.			
e) the monthly and annual quantities in cubic metres of any Discharges of water or Waste from the Long Lake Containment Facility, King Pond Settling Pond, Phase 1 Tailings Containment Area and Two Rock Sedimentation Pond;	Part B, Item 9(e)	Part B, Item 1(e)	Same condition in both licences.			
f) the monthly and annual quantities in cubic metres of Minewater pumped from each open pit and underground mine;	Part B, Item 9(f)	Part B, Item 1(f)	Same condition in both licences.			
g) the monthly and annual quantities in cubic metres of treated Sewage effluent Discharged from the Sewage Treatment Facilities;	Part B, Item 9(g)	Part B, Item 1(g)	Main Licence language used.			
h) the monthly and annual quantities in cubic metres of Sewage solids removed from the Sewage Treatment Facilities;	Part B, Item 9(h)	N/A	From Main Licence.			
i) the source and volume (on a monthly and annual basis in cubic metres) of recycled water, identifying both source and use;	Part B, Item 9(c)	Part B, Item 1(h)	Same condition in both licences.			
j) tabular and graphical summaries of all data and information generated under the "Surveillance Network Program" in an electronic and printed format acceptable to the Board. The Licensee shall provide raw data in electronic form upon request by the Board;	Part B, Item 9(i)	Part B, Item 1(i)	Same condition in both licences.			
<u>Management Plans and Activities:</u>						
k) a summary of Dewatering and Drawdown activities in accordance with Part E, Item 1;	Part B, Item 9(k)	Part B, Item 1(j)	Same condition in both licences.			
l) a summary of Construction activities and an updated Mine Plan;	Part B, Item 9(l) and (x)	Part B, Item 1(k)	This one condition encompasses all three of the listed conditions of two licences.			
m) a summary of all work carried out under the approved Management Plans over the last year in accordance with Part G, Items 1 through 4 and 6 through 8 of this Licence including:	Part B, Item 9(m)	Part B, Item 1(l) and (w)	Same condition in both licences.			
i. the quantity of kimberlite processed through the process plant,	Part B, Item 9(m)(i)	N/A	From Main Licence.			

ii.	the quantity of Waste Rock from each open pit and underground mine deposited in each of the Waste Rock Storage Areas,	Part B, Item 9(m)(ii)	Part B, Item 1(m)	Same condition in both licences.			
iii.	the quantity of Coarse Kimberlite Reject Material deposited in the Coarse Kimberlite Reject Material storage areas,	Part B, Item 9(m)(iii)	N/A	From Main Licence.			
iv.	the quantity of fine Processed Kimberlite deposited in the Long Lake Containment Facility,	Part B, Item 9(m)(iv)	N/A	From Main Licence.			
v.	a summary of the results of Seepage surveys conducted in accordance with Part G, Item 4 of this Licence, and	Part B, Item 9(m)(v)	Part B, Item 1(l)	Same condition in both licences.			
vi.	updated results of ongoing Acid/Alkaline Rock Drainage and related geochemical test work;	Part B, Item 9(m)(vi)	N/A	From Main Licence.			
n)	a summary of Modifications in accordance with Part H of this Licence and/or major maintenance work carried out on any water or Waste management facilities including, but not limited to, Water Supply Facilities, Collection and Settling Ponds, Long Lake Containment Facility, King Pond Settling Pond, Sewage Treatment Facilities, Two Rock Sedimentation Pond, Pigeon Diversion Channel and associated structures;	Part B, Item 9(n)	Part B, Item 1(n)	Same condition in both licences.			
o)	a summary of the results of the Aquatic <u>Environmental Effects</u> Monitoring Program in accordance with Part J of this Licence;	Part B, Item 9(t)	Part B, Item 1(p)	Same condition in both licences.		BHP Billiton suggests that the word "Environmental" should be "Effects"	Board staff recommendation: Accept BHP Billiton's recommendation. Board decision:" Accept staff recommendation.
p)	a progress report on any studies requested by the Board that relate to Waste management, water use or mine site reclamation and a brief description of any future studies planned by the Licensee;	Part B, Item 9(o)	Part B, Item 1(o)	Same condition in both licences.			
q)	a summary of any revisions to the approved:	Part B, Item 9(p)	N/A	From Main Licence.			
i.	Wastewater and Processed Kimberlite Management Plan and Waste Rock and Ore Storage Management Plan referred to in Part G of this Licence; and	Part B, Item 9(p)(i)	N/A	From Main Licence.			
ii.	Contingency Plan, Hydrocarbon-Contaminated Materials Management Plan and Adaptive Management Plan referred to in Part I of this Licence.	Part B, Item 9(p)(ii)	Part B, Item 1(q)	Equivalent condition in both licences with respect to the Contingency Plan only; rest is from Main Licence only.			
r)	a summary of the results of the monitoring carried out under the Hydrocarbon-Contaminated Materials Management Plan and Adaptive Management Plan referred to in Part I, Items 5 and 6 of this Licence;	Part B, Item 9(q)	N/A	From Main Licence.			
<u>Spills and Unauthorized Discharges:</u>							
s)	a list and description including volumes of all Unauthorized Discharges and summaries of follow-up action taken;	Part B, Item 9(r)	Part B, Item 1(r)	Same condition in both licences.			
t)	an outline of any spill training and communications exercises carried out;	Part B, Item 9(s)	Part B, Item 1(s)	Same condition in both licences.			
<u>Closure and Reclamation:</u>							

u) a summary of any amendments to the approved Interim or Final Closure and Reclamation Plan in accordance with Part K of this Licence;	Part B, Item 9(u)	Part B, Item 1(t)	Same condition in both licences.			
v) a summary of any closure and reclamation work undertaken during the year and an outline of any work anticipated for the next year;	Part B, Item 9(v)	Part B, Item 1(u)	Same condition in both licences.			
w) an updated estimate of the current mine reclamation liability (as at December 31 of the preceding year) using the current version of RECLAIM, its equivalent or some other method acceptable to the Board;	Part B, Item 9(w)	Part B, Item 1(v)	Same condition in both licences.			
Other Reporting Requirements:						
x) any other details on water use or Waste disposal requested by the Board by November 1 st of the year being reported; and	Part B, Item 9(y)	Part B, Item 1(x)	Same condition in both licences.			
y) a list of the techniques that will be used to analyze samples collected under the attached Surveillance Network Program during the following year.	Part B, Item 9(j)	N/A	From Main Licence.			
2. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times.	Part B, Item 14	Part B, Item 8	Same condition in both licences.			
3. The Licensee shall comply with the Surveillance Network Program, which is annexed to and forms part of this Licence, and any amendment to the said Surveillance Network Program as may be made from time to time by the Board.	Part B, Item 10	Part B, Item 3	Same condition in both licences.			
4. The attached Surveillance Network Program and any compliance dates specified in this Licence may be amended at the discretion of the Board.	Part B, Item 11	Part B, Item 4	Same condition in both licences.			
5. Meters, devices or other such methods used for measuring the volumes of water used and Waste Discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.	Part B, Item 12	Part B, Item 5	Same condition in both licences.			
6. The Licensee shall post and maintain signs to identify the stations listed in the attached Surveillance Network Program. All postings shall be located and maintained to the satisfaction of an Inspector.	Part B, Item 13	Part B, Item 6	Same condition in both licences.			
7. The water use fee shall be paid annually in advance of any water use.	Part B, Item 2	Part D, Item 4	Main Licence language used.			
Part C: Conditions Applying to Security Deposits						
1. Prior to the use of water for industrial undertakings or the disposal of Waste and pursuant to section 17(1) of the Act and Section 12 of the Regulations, the Licensee shall have posted and shall maintain a security deposit according to the following:	Part B, Item 3	Part C, Item 1	Amalgamation of licences required changing some of the language of the Main Licence although there is no change in the meaning or the requirements of the Main Licence.			
a) a security deposit of CDN \$21,025,000 <u>for the Project, excluding the Sable, Pigeon and Beartooth Development;</u>	Part B, Item 3	N/A	See above.		BHP Billiton suggests the following wording be added to the end of this clause "for the Project excluding the Sable, Pigeon and	Board staff recommendation: Accept BHP Billiton's recommendation.

					Beartooth Development". This would clarify what parts of the Project are meant to be covered by this amount.	Board decision: Accept staff recommendation.
b) interim security in the amount of CDN \$56,000,000 <u>for the Project, excluding the Sable, Pigeon and Beartooth Development</u> ;	Part B, Item 3(a)	N/A	See above.		BHP Billiton suggests the following wording be added to the end of this clause "for the Project excluding the Sable, Pigeon and Beartooth Development" ". This would clarify what parts of the Project are meant to be covered by this amount.	Board staff recommendation: Accept BHP Billiton's recommendation. Board decision: Accept staff recommendation.
c) reclamation security in the amount of CDN \$14,446,000 as required by Licence MV2001L2-0008 shall be returned to the Licensee upon the Licensee posting CDN \$4,325,673 security for Beartooth pit;	N/A	Part C, Item 1(a)	Values for SPB Development have been changed based on evidence presented to Board.			
d) reclamation security in the amount of CDN \$4,019,232 shall be posted sixty (60) days prior to Construction commencing at the Sable pit;	N/A	Part C, Item 1(a)	Values for SPB Development have been changed based on evidence presented to Board.			
e) reclamation security in the amount of CDN \$1,260,481 shall be posted sixty (60) days prior to Construction commencing at the Pigeon pit; and	N/A	Part C, Item 1(a)	Values for SPB Development have been changed based on evidence presented to Board.			
f) Any further amounts as may be required by the Board based on annual estimates of current mine reclamation liability in accordance with Part B, Item 1(w) of this Licence.	Part B, Item 3(b)	Part C, Item 1(b)	Main Licence language used.	It is not clear whether approval of a revised ICRP could be the basis for reconsideration of the security held. It would be better if such a revision were explicitly stated as a basis for reconsideration of the security deposit.	In response to IEMA's comments, BHP Billiton notes that Part B, Item 1(w) provides the link to the ICRP.	Board staff recommendation: Any revision to security required based on approval of a revised ICRP will be captured in the annual update as per Part B, Item 1(w). Board decision: Accept staff recommendation.
2. The security deposit required under Part C, Item 1 shall be in a form acceptable to the Minister and shall be maintained until such time as they are fully or partially refunded by the Minister pursuant to section 17 of the Act.	Part B, Item 4	Part C, Item 2	Main Licence language used.			
3. A reclamation trust fund may be established for the posting and maintenance of any security	Part B, Item 5	N/A	Main Licence			

deposits required under Part C, Item 1 during the term of this Licence. The Licensee shall implement the terms of the reclamation trust agreements as accepted by the Minister.			language used.			
4. The Licensee may apply to the Board for a reduction in the amount of security required if there is a reduction in the total liability at the Project site.	Part B, Item 6	Part C, Item 3	Main Licence language used.			
5. The Licensee shall be liable for any and all costs related to the closure and reclamation of the Project site over and above the total amount of the security deposits posted.	Part B, Item 7	Part C, Item 4	Main Licence language used.			
6. Part C, Items 1 through 5 of this Licence shall survive the expiry of this Licence or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.	Part B, Item 8	Part C, Item 2	Main Licence language used.			
Part D: Conditions Applying to Water Use						
1. The Licensee <u>may</u> obtain water for domestic purposes, processing, road watering and associated uses from Two Rock Lake, Grizzly Lake, Little Lake, Long Lake and Thinner Lake (Misery Camp), using the Water Supply Facilities or as otherwise approved by the Board.	Part C, Item 1	N/A	From Main Licence.		BHP Billiton requests that the language from the Main Licence be maintained with the word “may” rather than “shall” because the clause is intended to be permissive rather than prescriptive. The change to “shall” in this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation	Board staff recommendation: Accept BHP Billiton’s recommendation. Board decision: Accept staff recommendation.
2. The annual quantity of fresh water withdrawn for any purpose shall not exceed the limits set out below (in cubic metres):	Part C, Item 2	Part D, Item 2	Main Licence language used.			
a) Pigeon Pond 18, 500	N/A	Part D, Item 2(a)	From SPB Licence.			
b) Sable Lake 393, 000	N/A	Part D, Item 2(b)	From SPB Licence.			
c) Beartooth Lake 145, 000	N/A	Part D, Item 2(c)	From SPB Licence.			
d) Two Rock Lake 143, 500	N/A	Part D, Item 2(d)	From SPB Licence.			
e) Grizzly Lake 200, 000	Part C, Item 2(a)	N/A	From Main Licence.			
f) Little Lake 400, 000	Part C, Item 2(b)	N/A	From Main Licence.	INAC does not consider the removal of Thinner and Little lake as significant changes to the license since neither lake is being used for water withdrawal. However, if these lakes are to remain in the license, INAC recommends that the Board consider the concerns raised by DFO at the	To clarify, although BHP Billiton has not taken water from Little Lake, future mining at Misery Pit may need to use water from this lake. Removal of this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation.	Board staff recommendation: To retain any references to Little Lake and Thinner Lake within the licence as BHPB may decide to use these lakes in the future. See WLWB staff response for Part E, Item 1 for further

				public hearing on March 4, 2009 in regards to the volume and timing of withdrawals from both Thinner and Little Lakes.		clarification regarding water withdrawal. Board decision: Accept staff recommendation.
g) Thinner Lake	15,000	Part C, Item 2(c)	N/A	From Main Licence.	INAC – same as above	To clarify, although BHP Billiton has not taken water from Thinner Lake, future mining at Misery Pit may need to use water from this lake. Removal of this clause is also beyond the scope of review on this renewal as it is not necessary to facilitate amalgamation. Board staff recommendation: See WLWB staff response above. Board decision: Accept staff recommendation.
3. The Licensee shall obtain water for road watering and associated uses from Two Rock Sedimentation Pond only if the water meets the effluent quality criteria established in Part GD , Item 15(a) and 15(b) of this water Licence, or as otherwise approved by the Board.		N/A	Part D, Item 1	From SPB Licence		BHP Billiton requests that the reference in this clause be changed to “Part G, Item 15(b)” because 15(a) is not applicable to Two Rock Sedimentation Pond. Board staff recommendation: Accept BHP Billiton’s recommendation. Board decision: Accept staff recommendation.
4. The freshwater intake pumps shall operate in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline, 1995, or subsequent editions.		Part C, Item 3	Part D, Item 3	Wording has been modified to improve clarity.		
5. The Drawdown of Little Lake shall not exceed one metre from the water level recorded immediately prior to the start-up of the sampling plant.		Part C, Item 5	N/A	Main Licence language used.		
6. The Drawdown of Grizzly Lake and Thinner Lake (Misery Camp) shall not exceed one (1) metre from the water level recorded immediately prior to the start-up of the process plant.		Part C, Item 4	N/A	Main Licence language used.		
PART E: Conditions Applying to Dewatering and Drawdown						
1. Prior to the commencement of Dewatering or Drawdown, excluding the Drawdown of Grizzly Lake, Little Lake and Thinner Lake , the Licensee shall submit to the Board for approval, a Dewatering or Drawdown Plan for each lake that shall include, but not be limited to, the following information:		Part D, Item 1	Part E, Item 2	Main Licence language used.		Board staff recommendation: Elimination of the words “Little Lake and Thinner Lake” addresses concerns about drawdown. A Drawdown plan for both of these lakes will then be required for Board approval. Board decision: Accept staff

						recommendation.
a) volume of water produced by Dewatering or Drawdown from each source;	Part D, Item 1(a)	Part E, Item 2(a)	Same condition in both licences.			
b) a schedule for Dewatering and Drawdown and maximum pump rates;	Part D, Item 1(b)	Part E, Item 2(c)	Same condition in both licences.			
c) pumping methods including locations of intake and outflow structures;	Part D, Item 1(c)	Part E, Item 2(d)	Same condition in both licences.			
d) the design of any erosion prevention structures in the areas where water or Waste is Discharged;	Part D, Item 1(d)	Part E, Item 2(e)	Main Licence language used.			
e) the description of procedures for inspecting any erosion along the affected watercourse;	Part D, Item 1(e)	Part E, Item 2 (f)	Main Licence language used.			
f) a description of and mitigation measures for any predicted hydrological or water quality impacts to downstream water bodies;	Part D, Item 1(f)	Part E, Item 2(k)	Main Licence language used.			
g) the schedule and locations for water quality monitoring;	Part D, Item 1(g)	Part E, Item 2(g)	Main Licence language used.			
h) the frequency, location and procedures for monitoring flow rates in the Discharge stream and <u>where appropriate</u> , in the receiving water body;	Part D, Item 1(h)	Part E, Item 2(g)	Main Licence language used.		BHP Billiton requests that the wording from the SPB Licence be used here because the only planned future Dewatering or Drawdown activities are associated with the SPB Development. It is therefore requested that this clause read: "the frequency, location and procedures for monitoring flow rates in the Discharge stream."	Board staff recommendation: To add the words "where appropriate" so this clause can apply to the receiving water body when necessary. Board decision: Accept staff recommendation.
i) the design of the pipeline and related facilities; and	Part D, Item 1(i)	Part E, Item 2(i)	Same condition in both licences.			
j) the procedures and rates for Dewatering or Drawdown to minimize erosion of the downstream water bodies, adjacent shorelines and, in winter, damage to spawning habitat from the development of icings, overflows or glaciation.	Part D, Item 1(j)	Part E, Item 2(j)	Main Licence language used.			
2. The Licensee shall implement the Dewatering or Drawdown Plan referred to in Part E, Item 1, as and when approved by the Board.	Part D, Item 2	Part E, Item 3	Same condition in both licences.			
3. Prior to Dewatering or Drawdown, each water source shall be sampled and analyzed for those parameters outlined in Part G, Item 15(a) and 15(b) and results shall be provided to an Inspector before Dewatering or Drawdown commences.	Part D, Item 3	Part E, Items 4 and 5	Main Licence language used.		BHP Billiton requests that the word "and" between 15(a) and 15(b) be changed to "or" to add clarity to the licence.	Board staff recommendation: A wording change is not necessary because both 15(a) and 15(b) specify where the respective EQC apply. Board decision: Accept staff recommendation.
4. All Discharge outflow structures shall be located so as to minimize erosion.	Part D, Item 4	Part E, Item 6	Same condition in			

			both licences.			
5. During the Dewatering or Drawdown of any lake, daily erosion inspections of the Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee shall notify an Inspector, and take the necessary corrective action to mitigate the erosion problem to the satisfaction of an Inspector.	Part D, Item 5	Part E, Item 7	Same condition in both licences.			
6. The Licensee shall ensure that Drawdown rates from pumps do not exceed 2.55 m ³ /sec during May to July inclusive, and 0.52 m ³ /sec during the remaining months.	Part D, Item 6	Part E, Item 8	Main Licence language used.			
7. The Licensee shall submit to the Board and an Inspector, within sixty (60) days of the completion of Dewatering or Drawdown of any water source, excluding Grizzly Lake, Little Lake and Thinner Lake, a summary report that shall include, but not be limited to, the following:	Part D, Item 7	Part E, Item 9	Same condition in both licences.			
a) the metered daily, monthly, and total Discharge rates;	Part D, Item 7(a)	Part E, Item 9(a)	SPB Licence language used.			
b) a description of any erosional problems encountered and mitigative actions taken;	Part D, Item 7(b)	Part E, Item 9(b)	Main Licence language used.			
c) the results of water quality monitoring and compliance with the regulated water quality requirements;	Part D, Item 7(c)	Part E, Item 9(c)	SPB Licence language used.			
d) a summary of any impacts to the Receiving Environment resulting from Dewatering or Drawdown activities;	Part D, Item 7(d)	Part E, Item 9(d)	Main Licence language used.			
Part F: Conditions Applying to Construction						
1. At least ten (10) days prior to Construction of any facilities related to water use or Waste disposal for the Project, excluding Sumps, that are included in an approved Management Plan, the Licensee shall submit to the Board design drawings stamped by a Professional Engineer, a Construction schedule and any information required under Part F, Item 2 of this Licence that was not included in an approved Management Plan.	Part E, Item 1	N/A	Main Licence language used.			
2. At least forty-five (45) days prior to the start of Construction, or ninety (90) in the case of the Pigeon Stream Diversion Channel, of any facilities related to water use or Waste disposal for the Project, excluding Sumps, that are not part of a Board approved Management Plan, the Licensee shall submit to the Board for approval a Construction Plan that shall contain, but not be limited to, the following information:	Part E, Item 2	Part F, Item 2, 4 and 8	Main Licence language used.			
a) a description of the facilities to be constructed;	Part E, Item 2(a)	Part F, Item 2	Main Licence language used.			
b) the proposed location for the structures;	Part E, Item 2(b)	N/A	Main Licence language used.			
c) any potential impacts to the aquatic environment;	Part E, Item 2(c)	N/A	Main Licence language used.			
d) a description of any monitoring including, but not limited to, sampling locations, parameters measured and frequencies of sampling to be carried out to determine impacts to the aquatic environment;	Part E, Item 2(d)	N/A	Main Licence language used.			
e) a detailed description of any measures used to prevent or mitigate impacts to the aquatic environment;	Part E, Item 2(e)	Part F, Item 2(a)	Main Licence language used.			
f) schedule for the Construction;	Part E, Item 2(f)	Part F, Item 2	Main Licence language used.			
g) drawings of engineered structures stamped by a Professional Engineer; and	Part E, Item 2(g)	Part F, Item 2	Main Licence language used.			
h) in the case of the Pigeon Stream Diversion Channel, the details of measures to prevent	N/A	Part F, Item 12	This condition only applies to the SPB			

degradation of permafrost and/or ice lenses.			Development.		
3. Dams, dykes or structures designed to contain, withhold, divert or retain water or Wastes constructed as part of the Sable, Pigeon and Beartooth Development must comply with the Dam Safety Guidelines.	N/A	Part F, Item 2	This condition only applies to the SPB Development.		
4. The Inspector must receive written notification a minimum of ten (10) days prior to commencement of Construction at the Sable, Pigeon and Beartooth Development from the Licensee.	N/A	Part F, Item 3	This condition only applies to the SPB Development.		
5. The Licensee shall ensure that Construction of engineered structures is supervised by a Professional Engineer.	Part E, Item 3	Part F, Item 10	Main Licence language used.		
6. The Licensee shall, within ninety (90) days of completion of any Construction of engineered structures related to water use and Waste disposal for the Project, excluding the Construction of Sumps, submit to the Board a report prepared by a Professional Engineer that shall include as-built drawings, documentation of field decisions that deviate from original plans and any data used to support these decisions.	Part E, Item 4	Part F, Item 6 and 10	Main Licence language used.		
7. The Licensee shall undertake and submit to the Board, the results of a comprehensive delineation program to identify soil, rock and ground ice conditions prior to the start of Construction along the centreline of all containment structures and diversion channels related to the Sable, Pigeon and Beartooth Development.	N/A	Part F, Item 7	This condition only applies to the SPB Development.		
Part G: Conditions Applying to Waste Disposal					
1. Wastewater and Processed Kimberlite Management Plan	Part F, Item 1	Part G, Item 1	Same condition in both licences.		
a) The Licensee shall operate in accordance with the Wastewater and Processed Kimberlite Management Plan as approved by the Board. Amendments to the Plan shall be in accordance with the NWT Water Board's "Guidelines for Tailings Impoundment in the Northwest Territories, February 1987" or any subsequent editions, and shall include, but not be limited to the following:	Part F, Item 1(a)	Part G, Item 1(a)	Main Licence language used.		
i. a comprehensive description of all sources and types of Waste related to the <u>P</u> project where not provided in the Acid/Alkaline Rock Drainage (ARD) and Geochemical Characterization Plan, or the Waste Rock and Ore Storage Management Plan as approved by the Board,	Part F, Item 1(a)(i)	Part G, Item 1(a)(i)	Main Licence language used.		
ii. a description of any proposed physical or chemical treatment of Waste prior to Discharge to the Long Lake Containment Facility, the King Pond Settling Pond, the Phase 1 Tailings Containment Area, Two Rock Sedimentation Pond, or to the Receiving Environment,	Part F, Item 1(a)(ii)	Part G, Item 1(a)(ii)	Main Licence language used; updated to include SPB Development.		
iii. a description, including maps to scale, of the locations of monitoring stations for ground temperature, water quality, water Discharge and Processed Kimberlite elevation, including the sampling protocols and frequency to be undertaken at each station,	Part F, Item 1(a)(iii)	Part G, Item 1(a)(ii)	Main Licence language used.		
iv. a schedule of Processed Kimberlite Discharge within the Long Lake Containment Facility over the term of this Licence, including detailed maps showing deposition locations,	Part F, Item 1(a)(iv)	N/A	Main Licence language used.		
v. stage-volume curves and water balance calculations showing life expectancy of the Long Lake Containment Facility and Two Rock Sedimentation Pond,	Part F, Item 1(a)(v)	Part G, Item 1(a)(xi)(6)	Main Licence language used; updated to include SPB Development.		
vi. an anticipated schedule of volumes of Discharge to and from the Two Rock Sedimentation Pond and Kingd Pond Settling Pond,	Part F, Item 1(a)(vi)	Part G, Item 1(a)(iv)	Main Licence language used; updated to include		

			SPB Development.			
vii.	a series of contingency <u>ies options</u> should Two Rock Sedimentation Pond approach or exceed capacity, and	N/A	Part G, Item 1(a)(v)	This condition only applies to the SPB Development.		
viii.	any operational changes and Modifications, which may impact the Wastewater and Processed Kimberlite Management Plan;	Part F, Item 1(a)(vii)	Part G, Item 1(a)(vi)	Same condition in both licences.		
b)	The Licensee shall submit to the Board for approval, sixty (60) days prior to the Construction of both, the Sable and Pigeon pits, an updated Wastewater and Processed Kimberlite Management Plan.	N/A	N/A	This condition only applies to the SPB Development.		
2.	Acid/Alkaline Rock Drainage (ARD) and Geochemical Characterization and Management Plan	Part F, Item 2	Part G, Item 2	Same condition in both licences.		
a)	The Licensee shall operate in accordance with the Acid/Alkaline Rock Drainage and Geochemical Characterization and Management Plan for managing non-neutral drainage and metal leaching, as approved by the Board. The plan shall be in accordance with the Department of Indian Affairs and Northern Development's DIAND "Guidelines for Acid Rock Drainage Protection in the North, September 1992" or subsequent updates, and shall include, but not be limited to, the following:	Part F, Item 2(a)	Part G, Item 2(a)	Language updated to reflect the fact that these plans have been approved since the last licences were written.		
i.	characterization of the rock types, geology and mineralogy of the rock units for each mine component including each pit or pipe or mine workings, the quantity of rock, Waste or sludge, or the surface area exposure in pit walls,	Part F, Item 2(a)(i)	Part G, Item 2(a)(i)	Same condition in both licences.		
ii.	representative sampling and testing of each rock unit,	Part F, Item 2(a)(ii)	Part G, Item 2(a)(ii)	Same condition in both licences.		
iii.	assessment of potential for Acid/Alkaline Rock Drainage and for metal leaching from ore stockpiles, Waste Rock and pit wall rock, both during operation and after closure,	Part F, Item 2(a)(iii)	Part G, Item 2(a)(iii)	Same condition in both licences.		
iv.	representative sampling and testing of Processed Kimberlite,	Part F, Item 2(a)(iv)	N/A	Main Licence language used.		
v.	description of predicted loadings and/or impact on receiving water chemistry from each source, incorporating the results of Seepage surveys where available,	Part F, Item 2(a)(vi)	Part G, Item 2(a)(iv)	Same condition in both licences.		
vi.	geochemical characterization of material to be used for reclamation, and	Part F, Item 2(a)(vii)	Part G, Item 2(a)(v)	Same condition in both licences.		
vii.	description of the process to be used to regularly assess and amend the plans based on on-going data collection through this program or through the attached Surveillance Network Program, the Aquatic Effects Monitoring Program, Seepage Surveys, or other environmental monitoring programs;	Part F, Item 2(a)(viii)	N/A	Main Licence language used.		
b)	The Licensee shall submit an updated Acid/Alkaline Rock Drainage and Geochemical Characterization Management Plan to the Board for approval, sixty (60) days prior to the Construction of both the Sable and Pigeon pits.	N/A	N/A	This condition only applies to the SPB Development.		
3.	Waste Rock and Ore Storage Management Plan	Part F, Item 3	Part G, Item 3	Same condition in both licences.		
a)	The Licensee shall operate in accordance with the Waste Rock and Ore Storage Management Plan, as approved by the Board. Any amended versions of this Management Plan shall include, but not be limited to the following:	Part F, Item 3(a)	Part G, Item 3(a)	Main Licence language used.		
i.	a schedule of ore stockpiling, and Coarse Kimberlite Reject Material and Waste Rock production by rock type, tonnage, and destination over the term of this Licence,	Part F, Item 3(a)(i)	Part G, Item 3(a)(i)	Main Licence language used.		
ii.	a complete description, including site maps to scale, of each proposed ore and	Part F, Item	Part G, Item	Main Licence		

	Waste Rock Storage Area,	3(a)(ii)	3(a)(iii)	language used.		
iii.	detailed descriptions of the different types of solid Waste disposed of and the locations for the disposal of solid Waste and sewage sludge within the Waste Rock Storage Area,	Part F, Item 3(a)(iii)	Part G, Item 3(a)(ii)	Main Licence language used.		
iv.	an identification of all potential sources of Seepage for each Waste Rock Storage Area and the distance to the downstream Receiving Environment,	Part F, Item 3(a)(iv)	Part G, Item 3(a)(iv)	Main Licence language used.		
v.	detailed proposals for management of Seepage, including water quality monitoring, collection, treatment, re-routing and final disposal and for incorporating the studies and plans developed under Part G, Item 4 of this Licence,	Part F, Item 3(a)(v)	Part G, Item 3(a)(v)	Main Licence language used.		
vi.	detailed Construction plans and drainage management for Waste Rock Storage Areas used for containment of the Misery schist, and other Waste rock types that may be identified as problematic through Acid/Alkaline Rock Drainage testing, including contingency plans for controlling runoff and Seepage water chemistry,	Part F, Item 3(a)(vi)	Part G, Item 3(a)(vi)	Main Licence language used.		
vii.	temperature analysis of all Waste Rock Storage Areas having acid/alkaline potential to include the effect of oxidation reactions on predicted Acid/Alkaline Rock Drainage generation rates,	Part F, Item 3(a)(vii)	Part G, Item 3(a)(vii)	Main Licence language used.		
viii.	detailed descriptions of how Seepage surveys will be carried out to meet the requirements of Part G, Item 4, and	Part F, Item 3(a)(viii)	N/A	From Main Licence.		
ix.	in the case of the Sable and Pigeon pit, a description of the geochemical criteria for the management and placement of potentially ARD Waste rock and hydrocarbon contaminated materials within the Waste R ock Storage Areas dumps . This shall include a section describing the process for segregation of the various rock types;	N/A	Part G, Item 3(a)(viii)	This condition only applies to the SPB Development.	BHP Billiton requests that "Waste rock dumps" be changed to "Waste Rock Storage Areas". This suggested change will add clarity to the licence and is consistent with the change in the definition in Part A, Item 2.	Board staff recommendation: Accept BHP Billiton's recommendation. Board decision: Accept staff recommendation.
b)	The Licensee shall submit an updated Waste Rock and Ore Storage Management Plan to the Board for approval, sixty (60) days prior to the Construction of both the Sable and Pigeon pits.	N/A	N/A	This condition only applies to the SPB Development.		
4.	During the term of this Licence, the Licensee shall conduct a Seepage survey of all constructed ore stockpiles or Waste Rock Storage Areas on the following basis:	Part F, Item 4	Part G, Item 3(b)	Same condition in both licences.		
a)	sampling of detected Seepage twice per year; once during spring freshet, and again in late summer or fall;	Part F, Item 4(a)	Part G, Item 3(b)(i)	Same condition in both licences.		
b)	testing in the field shall include measurements of volume and rate of flow, field pH and conductivity;	Part F, Item 4(b)	Part G, Item 3(b)(ii)	Same condition in both licences.		
c)	laboratory analysis of each sample shall include Major Ions (as defined in the attached Surveillance Network Program), pH, conductivity, sulphate, alkalinity/acidity, nitrogen as total ammonia, hardness, total suspended solids (TSS), and dissolved metals by inductively coupled plasma (ICP) mass spectrometry;	Part F, Item 4(c)	Part G, Item 3(b)(iii)	Main Licence language used.		
d)	laboratory analysis of Seepage samples in areas down gradient of the land farm, Contaminated Snow Containment Facility, and the R acetrack shall include TPH and BTEX as defined in the attached Surveillance Network Program;	Part F, Item 4(d)	N/A	From Main Licence.		
e)	all data collected is to be reported to the Board within sixty (60) days of each survey; and	Part F, Item 4(e)	Part G, Item 3(b)(iv)	Main Licence language used.		

f) a report interpreting the results of both surveys shall be submitted to the Board for approval within sixty (60) days of the completion of the second survey, and shall include site plans indicating the locations of Seepage, the Quality Assurance/Quality control (QA/QC) protocols used, and a consideration of how the results will affect the Waste Rock and Ore Storage Management Plan required under Part G, Item 3.	Part F, Item 4(f)	Part G, Item 3(b)(iv)	Main Licence language used.		BHP Billiton requests that “within sixty (60) days of the completion of the second survey” be changed to “by March 31 annually” in recognition of established practise with the WLWB.	Board staff recommendation: Accept BHP Billiton’s recommendation. Board decision: Accept staff recommendation.
5. Prior to the start of Construction of a Waste Rock Storage Area for each of the Sable and Pigeon pits, the Licensee shall submit to the Board a final detailed design report stamped by a Professional Engineer. This report shall include geothermal and short-term stability analyses, and be developed in accordance with the Waste Rock and Ore Storage Management Plan as described in Part G, Item 3.	N/A	Part G, Item 4	This condition only applies to the SPB Development.			
6. If the Management Plans referred to in Part G, Items 1, 2 and 3, and the report referred to in Part G, Item 4(f) are not approved by the Board, the Licensee shall revise the Management Plans or report and re-submit them to the Board for approval within three (3) months of receiving notification of the Board’s decision.	Part F, Item 5	Part G, Item 5	Main Licence language used.			
7. The Licensee shall implement the Management Plans referred to in Part G, Items 1, 2 and 3 as and when approved by the Board.	Part F, Item 6	Part G, Item 6	Same condition in both licences.			
8. The Licensee shall review the Management Plans referred to in Part G, Items 1, 2 and 3, annually and modify as necessary to reflect changes in operation and technology, or as requested by the Board. Any proposed amendments to the Management Plans shall be submitted to the Board for approval.	Part F, Item 7	Part G, Item 7	Main Licence language used.			
9. Two Rock Sedimentation Pond:	N/A	Part G, Item 8				
a) the Licensee shall construct, operate and maintain Two Rock Sedimentation Pond to engineering standards such that:	N/A	Part G, Item 8(a)	This condition only applies to the SPB Development.			
i. a minimum Freeboard limit of 1.0 metre shall be maintained at all times or as recommended by a Professional Engineer and as approved by the Board,	N/A	Part G, Item 8(a)(i)	This condition only applies to the SPB Development.			
ii. Seepage from the Two Rock Sedimentation Pond outlet dam is minimized at all times,	N/A	Part G, Item 8(a)(ii)	This condition only applies to the SPB Development.			
iii. any Seepage from the Two Rock Sedimentation Pond that occurs and does not meet effluent quality requirements, as specified in Part G, Item 15(b), shall be collected and immediately returned to the Two Rock Sedimentation Pond,	N/A	Part G, Item 8(a)(iii)	This condition only applies to the SPB Development.		BHP Billiton requests that following the word “Seepage” the words “from the Two Rock Sedimentation Pond” be added. This suggested change will add clarity and is consistent with Items 11(a)(iii) and 12(a)(iii) and 13(a)(iii).	Board staff recommendation: Accept BHP Billiton’s recommendation. Board decision: Accept staff recommendation.
iv. any constructed facilities that are eroded are repaired immediately, and	N/A	Part G, Item 8(a)(iv)	This condition only applies to the SPB Development.			
v. when not used for reclamation material, the solids fraction of the Sable Lake	N/A	Part G, Item 8(a)(v)	This condition only applies to the SPB			

sediments and the solids fraction of the Wastes deposited, shall be permanently contained within the Two Rock Sedimentation Pond;			Development.			
b) inspections of Two Rock Sedimentation Pond, pipeline(s), and catchment basin(s) shall be carried out weekly when operating or more frequently as directed by the Inspector and records of these inspections shall be kept for review; and	N/A	Part G, Item 8(b)	This condition only applies to the SPB Development.			
c) an inspection of Two Rock Sedimentation Pond shall be carried out annually by a Professional Engineer. The engineer's report shall be submitted to the Board within thirty (30) days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to the engineer's recommendations.	N/A	Part G, Item 8(c)	This condition only applies to the SPB Development.			
10. Long Lake Containment Facility	Part F, Item 8	N/A	From Main Licence.			
a) the Licensee shall construct, operate and maintain the Long Lake Containment Facility to design specifications such that:	Part F, Item 8(a)	N/A	From Main Licence.			
i. a minimum Freeboard limit of 5.5 metres (including 1.5 metres of Frozen Core and 4.0 metres of embankment material) for the perimeter dams shall be maintained at all times;	Part F, Item 8(a)(i)	N/A	From Main Licence.			
ii. a Freeboard limit of 1.0 metre for the intermediate dykes shall be maintained at all times or as recommended by a Professional Engineer;	Part F, Item 8(a)(ii)	N/A	From Main Licence.			
iii. Seepage from the Long Lake Containment facility is minimized at all times;	Part F, Item 8(a)(iii)	N/A	From Main Licence.			
iv. any Seepage <u>from the Long Lake Containment Facility</u> that occurs and does not meet effluent quality requirements as specified in Part G, Item 15(a), shall be collected and immediately returned to the Long Lake Containment Facility;	Part F, Item 8(a)(iv)	N/A	From Main Licence.		BHP Billiton requests that following the word "Seepage" the words "from the Long Lake Containment Facility" be added. This suggested change will add clarity and is consistent with Items 11(a)(iii) and 12(a)(iii) and 13(a)(iii). It is also consistent with the existing wording of this Item (Part F, Item 8(a)(iv) in the Main Licence. BHP Billiton further notes that a change of wording from the Main Licence is not required to facilitate amalgamation	Board staff recommendation: Accept BHP Billiton's recommendation. Board decision: Accept staff recommendation.
v. any constructed facilities that are eroded are repaired immediately;	Part F, Item 8(a)(v)	N/A	From Main Licence.			
vi. the solids fraction of all Processed Kimberlite deposited in the Long Lake Containment Facility shall be permanently contained;	Part F, Item 8(a)(vi)	N/A	From Main Licence.			
vii. weekly inspections of the Long Lake Containment Facility shall be carried out in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and	Part F, Item 8(a)(vii)	N/A	From Main Licence.			

viii.	an inspection of the Long Lake Containment Facility shall be carried out annually in July by a Professional Engineer. The engineer's report shall be submitted to the Board within thirty days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the engineer.	Part F, Item 8(a)(viii)	N/A	From Main Licence. Minor wording change with no effect on Main Licence		
11. Phase 1 Tailings Containment Area		Part F, Item 9	N/A	From Main Licence.		
a)	the Licensee shall construct, operate and maintain the Phase 1 Tailings Containment Area to design specifications such that:	Part F, Item 9(a)	N/A	From Main Licence.		
i.	a minimum Freeboard limit of 1.0 metre shall be maintained at all times or as recommended by a Professional Engineer;	Part F, Item 9(a)(i)	N/A	From Main Licence.		
ii.	Seepage from the Phase 1 Tailings Containment Area is minimized at all times;	Part F, Item 9(a)(ii)	N/A	From Main Licence.		
iii.	any Seepage from the Phase 1 Tailings Containment Area that occurs and does not meet effluent quality requirements as specified in Part G, Item 15(a) shall be collected and immediately returned to the Phase 1 Tailings Containment Area;	Part F, Item 9(a)(iii)	N/A	From Main Licence.		
iv.	any constructed facilities that are eroded are repaired immediately;	Part F, Item 9(a)(iv)	N/A	From Main Licence.		
v.	inspections of the Phase 1 Tailings Containment Area shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and	Part F, Item 9(a)(v)	N/A	From Main Licence.		
vi.	an inspection of the Phase 1 Tailings Containment Area shall be carried out annually in July by a Professional Engineer. The engineers report shall be submitted to the Board within thirty days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the engineer.	Part F, Item 9(a)(vi)	N/A	From Main Licence. Minor wording change with no effect on Main Licence		
12. Collection and Settling Ponds		Part F, Item 10	N/A	From Main Licence.		
a)	the Licensee shall construct, operate and maintain the Collection and Settling Ponds to design specifications such that:	Part F, Item 10(a)	N/A	From Main Licence.		
i.	a minimum Freeboard limit of 1.0 metre shall be maintained at all times or as recommended by a Professional Engineer;	Part F, Item 10(a)(i)	N/A	From Main Licence.		
ii.	Seepage from the Collection and Settling Ponds is minimized at all times;	Part F, Item 10(a)(ii)	N/A	From Main Licence.		
iii.	any Seepage from the Collection and Settling Ponds that occurs and does not meet effluent quality requirements, as specified in Part G, Items 15(a) and 15(b), shall be collected and immediately returned to the Collection and Settling Ponds, the Long Lake Containment Facility, the Two Rock Sedimentation Pond, the process plant or another location approved by the Board;	Part F, Item 10(a)(iii)	N/A	From Main Licence.		
iv.	any constructed facilities that are eroded are repaired immediately;	Part F, Item 10(a)(vi)	N/A	From Main Licence.		
v.	inspections of the Collection and Settling Ponds shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and	Part F, Item 10(a)(v)	N/A	From Main Licence.		
vi.	an inspection of the Collection and Settling Ponds shall be carried out annually in	Part F, Item 10(a)(vi)	N/A	From Main Licence. Minor		

July by a Professional Engineer. The engineers report shall be submitted to the Board within thirty days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the engineer.			wording change with no effect on Main Licence			
13. King Pond Settling Pond	Part F, Item 11	N/A	From Main Licence.			
a) the Licensee shall construct, operate and maintain the King Pond Settling Pond to design specifications such that:	Part F, Item 11(a)	N/A	From Main Licence.			
i. a minimum Freeboard limit of 1.0 metre shall be maintained at all times or as recommended by a Professional Engineer;	Part F, Item 11(a)(i)	N/A	From Main Licence.			
ii. Seepage from the King Pond Settling Pond is minimized at all times;	Part F, Item 11(a)(ii)	N/A	From Main Licence.			
iii. any Seepage from the King Pond Settling Pond that occurs and does not meet effluent quality requirements, as specified in Part G, Item 15(a), shall be collected and immediately returned to the King Pond Settling Pond;	Part F, Item 11(a)(iii)	N/A	From Main Licence.			
iv. any constructed facilities that are eroded are repaired immediately;	Part F, Item 11(a)(iv)	N/A	From Main Licence.			
v. inspections of the King Pond Settling Pond shall be carried out regularly in consultation with a Professional Engineer and records of these inspections shall be kept for review. The Licensee shall perform more frequent inspections at the request of an Inspector; and	Part F, Item 11(a)(v)	N/A	From Main Licence.			
vi. an inspection of the King Pond Settling Pond shall be carried out annually in July by a Professional Engineer. The engineers report shall be submitted to the Board within thirty (30) days of the inspection, including a covering letter from the Licensee outlining an implementation plan to respond to to any recommendations made by the engineer..	Part F, Item 11(a)(vi)	N/A	From Main Licence. Minor wording change with no effect on Main Licence			
14. The Licensee shall provide water sampling results to an Inspector no later than five (5) days prior to any planned Discharges of water or Waste to the Receiving Environment. Discharge shall not commence until authorized by an Inspector.	Part F, Item 12	Part G, Item 9	Main Licence language used.			
15. Effluent Quality Requirements	Part F, Item 13	Part G, Item 11	Main Licence language used.			

<p>a) All water or Waste from the Project that enters the Receiving Environment, including all Discharges from Surveillance Network Program Stations 1616-30 and 1616-43, but excluding those Discharges listed in Part G, Items 15(b) and 4917, shall meet the following effluent quality requirements:</p> <table border="1" data-bbox="233 231 1258 977"> <thead> <tr> <th>Parameter</th> <th>Maximum Average Concentration (mg/L)</th> <th>Maximum Concentration of Any Grab Sample (mg/L)</th> </tr> </thead> <tbody> <tr> <td>Total Ammonia</td> <td>2.0</td> <td>4.0</td> </tr> <tr> <td>Total Aluminum</td> <td>1.0</td> <td>2.0</td> </tr> <tr> <td>Total Arsenic</td> <td>0.50</td> <td>0.10 1.0</td> </tr> <tr> <td>Total Copper</td> <td>0.1</td> <td>0.2</td> </tr> <tr> <td>Total Nickel</td> <td>0.15</td> <td>0.3</td> </tr> <tr> <td>Total Suspended Solids</td> <td>15.0</td> <td>25.0</td> </tr> <tr> <td>Total Petroleum Hydrocarbons</td> <td>3.0</td> <td>5.0</td> </tr> <tr> <td>Biochemical Oxygen Demand</td> <td>40.0</td> <td>-</td> </tr> </tbody> </table>	Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)	Total Ammonia	2.0	4.0	Total Aluminum	1.0	2.0	Total Arsenic	0.50	0.10 1.0	Total Copper	0.1	0.2	Total Nickel	0.15	0.3	Total Suspended Solids	15.0	25.0	Total Petroleum Hydrocarbons	3.0	5.0	Biochemical Oxygen Demand	40.0	-	<p>Part F, Item 13(a)</p>	<p>N/A</p>	<p>Main Licence language used except for the exclusion: "...but excluding those Discharges listed in Part G, Items 15(b) and 19...".</p> <p>Please note that, the Effluent Quality Requirements for that part of the EKATI Mine originally covered by the Main Licence have not changed.</p>	<p>The Maximum Concentration of Any Grab Sample for Arsenic should be 1.0 not 0.10. The correct figure is shown in the draft licence.</p> <p>The Table refers to the Max. Grab for Total Arsenic as 0.10 mg/L. The Main License lists this value at 1.0 mg/L, which is consistent with the average concentration limit of 0.5 mg/L. For example, it is presently not clear why clause 15(a) excludes the application of clause 19, note that clause 17 deals with Pigeon and Beartooth in addition to Sable, Pigeon and Beartooth are presumably meant to fall under clause 15(a) only applies to Sable. As such it is not clear why clause 15(a) would exclude 17, or why clause 17 would only reference clause 15(b).</p>	<p>BHP Billiton agrees that the correct Maximum Concentration of Any Grab Samples for Arsenic should be 1.0 and not 0.10 mg/L.</p>	<p>Board staff recommendation:</p> <p>Accept IEMA and INAC's recommendation.</p> <p>Board decision:</p> <p>Accept staff recommendation.</p>
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<p>b) All water or Waste from the Sable Development that enters the Receiving Environment, including Discharges from Surveillance Network Program Station 0008-Sa3, but excluding those Discharges listed in Part G, Item 17, shall meet the following effluent quality requirements:</p> <table border="1" data-bbox="233 1360 1258 1804"> <thead> <tr> <th>Parameter</th> <th>Maximum Average Concentration (mg/L)</th> <th>Maximum Concentration of Any Grab Sample (mg/L)</th> </tr> </thead> <tbody> <tr> <td>Total Ammonia</td> <td>4.0</td> <td>8.0</td> </tr> <tr> <td>Total Aluminum</td> <td>1.0</td> <td>2.0</td> </tr> <tr> <td>Total Arsenic</td> <td>0.050</td> <td>0.10</td> </tr> <tr> <td>Total Copper</td> <td>0.02</td> <td>0.04</td> </tr> </tbody> </table>	Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)	Total Ammonia	4.0	8.0	Total Aluminum	1.0	2.0	Total Arsenic	0.050	0.10	Total Copper	0.02	0.04	<p>N/A</p>	<p>Part G, Item 11(a) and (d) and Part G, Item 13</p>	<p>The language of this condition is more concise than the equivalent condition in the SPB Licence due to the use of the defined terms "Waste" and "Discharge".</p> <p>Note that there are two paragraphs in Part G, Item 11(d) that have been moved to separate conditions below: The requirement for Acute Toxicity</p>	<p>Limits for Total Petroleum Hydrocarbons (3.0 and 5.0 mg/L, respectively) appear to be missing.</p> <p>The table does not include Total Petroleum Hydrocarbons at 3mg/l and 5mg/l as discussed and agreed to in previous meetings.</p> <p>The values proposed in the May 8 letter from WLWB staff have been inserted in the table in</p>	<p>It is BHP Billiton's assumption that all nitrogen compounds (nitrate, nitrite and ammonia) are expressed as their nitrogen equivalent (nitrate-N, nitrite-N and ammonia-N). This is consistent with established practice. BHP Billiton suggests that the tables in Items 15(a) and (b) specify this.</p> <p>BHP Billiton may comment on the proposed new value for</p>	<p>Board staff recommendation:</p> <p>Accept INAC's recommendation to include "Total Petroleum Hydrocarbons" as this was an oversight to not include these clause when drafting the licence.</p> <p>Accept BHP Billiton's recommendation to clarify the licence with regards to nitrogen compounds.</p>												
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<p>c) Any water or Waste from the Project that enters the Receiving Environment shall have a pH between 6.0 and 9.0, except surface runoff which shall have a pH between 5.0 and 9.0; and</p>	<p>Part F, Item 13(b)</p>	<p>Part G, Item 11(d)</p>	<p>Main Licence language used.</p>																																				
<p>d) All water or Waste from the Project that enters the Receiving Environment, including Discharges from Surveillance Network Program Station 1616-30, 1616-43, and 0008-Sa3, shall be non-acutely toxic as determined by the acute toxicity tests described in Part B in</p>	<p>Part F, Item 13(c)</p>	<p>Part G, Item 11(d)</p>	<p>Main Licence language used.</p>																																				

the attached Surveillance Network Program.												
16. The Licensee shall direct all piped and pumped Sewage to the Sewage Treatment Facilities, or as otherwise approved by the Board.	Part F, Item 13(d)	Part G, Item 11(e)	Main Licence language used									
17. All surface runoff during the Construction of any facilities, related to the Sable, Pigeon and Beartooth Development, designed to withhold, divert, or retain such runoff up to the end of Construction, as per the Construction plan, shall prior to Discharge meet the criteria mentioned in Part G, Item 15(b) except for the following criterion:	N/A	Part G, Item 11(f)	This condition only applies to the SPB Development.									
<table border="1"> <thead> <tr> <th>Parameter</th> <th>Maximum Average Concentration</th> <th>Maximum Concentration of Any Grab Sample</th> </tr> </thead> <tbody> <tr> <td>TSS</td> <td>50 mg/L</td> <td>100mg/L</td> </tr> </tbody> </table>	Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample	TSS	50 mg/L	100mg/L						
Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample										
TSS	50 mg/L	100mg/L										
18. The Licensee shall direct all water or Waste from the Project that does not meet the effluent quality criteria specified under Part G, Items 15(a) and 15(b) to the Long Lake Containment Facility, the King Pond Settling Pond or the Two Rock Sedimentation Pond, or as otherwise approved by the Board.	Part F, Item 14	Part G, Item 11(c)	Main Licence language used; updated to include SPB Development.		BHP Billiton requests that the word “and” between 15(a) and 15(b) be changed to “or”, to add clarity to the licence.	Board staff recommendation: A wording change is not necessary because both 15(a) and 15(b) specify where the respective EQC apply. Board decision: Accept staff recommendation.						
19. Erosion Mitigation:	Part F, Item 15	N/A	From Main Licence.									
a) erosion prevention structures that are satisfactory to an Inspector shall be used at all points where water or Waste is Discharged;	Part F, Item 15(a)	N/A	From Main Licence.									
b) daily erosion inspections of Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee shall notify an Inspector and take necessary corrective action to mitigate the erosion problem to the satisfaction of an Inspector.	Part F, Item 15(b)	N/A	From Main Licence.									
20. The annual volumes of Discharge from Two Rock Sedimentation Pond shall not exceed 740,600 cubic metres per year during the operations phase.	N/A	Part G, Item 14	This condition only applies to the SPB Development.	The intent of this clause is unclear. INAC is concerned with the stated volume and potential issues with under ice discharge. INAC has concerns related to mixing characteristics and Dissolved Oxygen concentrations under ice during the winter. Potentially, after the results of the plume delineation study (i.e. Clause 21) discussions on under ice discharge could be initiated.	In response to INAC's comments, BHP Billiton refers parties to its previously provided information, on record, regarding this clause and the condition regarding under ice discharges. BHP Billiton agrees with this clause as written.	Board staff recommendation: Maintain the current wording as no evidence was presented at the public hearing to indicate that the volume of Discharge should be changed. Board decision: Accept staff recommendation.						

21. At least one year prior to commencing Discharge from Two Rock Sedimentation Pond, the Licensee shall submit to the Board, for approval, a report detailing the final proposed design of the outfall from Two Rock Sedimentation Pond into Horseshoe Lake. This report should include, at a minimum, the following information:	N/A	N/A				
a. the specifications of the proposed Discharge pipeline and the diffuser, if used;	N/A	N/A		Typo, change "diffuse" to "diffuser". Correct wording appears in the licence.	BHP Billiton agrees with IEMA's comment	Board staff recommendation: Accept IEMA's recommendation. Board decision: Accept staff recommendation.
b. the location of the end of pipe within Horseshoe Lake and a detailed rationale for selection of that location;	N/A	N/A				
c. the results of modeling the initial mixing of effluent into Horseshoe Lake based on the selected placement and specifications of the outfall;	N/A	N/A				
d. a proposed location for Surveillance Monitoring Program Station 0008-Sa9 that will allow verification of the model of initial effluent mixing in Horseshoe Lake;	N/A	N/A				
e. the design for a plume delineation study to confirm initial effluent mixing in Horseshoe Lake.	N/A	N/A				
22. Within eight months of beginning of Discharge from Two Rock Sedimentation Pond, the Licensee shall submit to the Board the results of a plume delineation study designed to describe dispersion of effluent into Horseshoe Lake from Two Rock Sedimentation Pond. This study should, at a minimum, be performed under worse-case conditions with respect to mixing within Horseshoe Lake and will be used to verify the Surveillance Network Program location proposed in Part G, Item 21(d). The location of Surveillance Network Program Station 0008-Sa9 may be moved as a result of this study.	N/A	N/A			BHP Billiton supports the substance of this clause but requests the following wording change: Change "Within eight months of..." to "Within eight months after the initial freshet (worst-case mixing scenario) following the..." This timing is required to ensure that the worst case mixing scenario (i.e. freshet) is studied and provides the opportunity for follow-up field studies if necessary. The clause as written could negate the opportunity to conduct the plume	Board staff recommendation: Maintain the current wording as it is intended to ensure that the first discharge will take place during a freshet in order to capture worst-case conditions. Discharge from the Two Rock Sedimentation Pond isn't currently planned to occur before 2015, so there will be an opportunity to clarify this clause in future licence renewals (2013) if necessary. Board decision: Accept staff recommendation.

					delineation study under the worst-case (freshet) mixing condition if, for example, Discharge commenced in August.	
PART H: Conditions Applying to Modifications						
1. The Licensee may, without written approval from the Board, carry out Modifications to facilities related to water use or Waste disposal provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:	Part G, Item 1	Part H, Item 1	Main Licence language used.		<p>BHP Billiton suggests that all occurrences of "Modification" in Part H, Item 1 should be lower case per the definition of the word.</p> <p>BHP Billiton requests the addition of the wording "that are included in an approved Management Plan" following the words "Waste disposal".</p> <p>This is consistent in scope with the requirements for Construction in Part F, item 1 and will enhance consistency within the licence. This is also consistent with the Board Staff's proposed change to Part H, Item 3 which proposes that as built drawings be stamped and signed by a Professional Engineer.</p>	<p>Board staff recommendation:</p> <p>The current wording in Part H, Item 1 will remain as presented.</p> <p>However, the definition of 'Modification' will be changed to provide more clarity. Please see the definition of "Modification" under Part A, Item 2 of this licence.</p> <p>Board decision: Accept staff recommendation.</p>
a) the Licensee has notified the Board in writing of such proposed Modifications at least forty-five (45) days prior to beginning the Modifications;	Part G, Item 1(a)	Part H, Item 1(a)	Same condition in both licences.			
b) such Modifications do not place the Licensee in contravention of either the Licence or the Act;	Part G, Item 1(b)	Part H, Item 1(b)	Same condition in both licences.			
c) the Board has not, during the forty-five (45) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than forty-five (45) days;	Part G, Item 1(c)	Part H, Item 1(c)	Same condition in both licences.			
d) the Board has not rejected the proposed Modifications; and	Part G, Item 1(d)	Part H, Item 1(d)	Same condition in both licences.			
e) an Inspector has authorized the Modifications.	Part G, Item 1(e)	N/A	From Main Licence.			
2. Modifications for which all of the conditions referred to in Part H, Item 1, have not been met, may be carried out only with written approval from the Board.	Part G, Item 2	Part H, Item 2	Same condition in both licences.			

3. The Licensee shall provide to the Board, stamped and signed as-built plans and drawings of the Modifications referred to in Part H, Item 1 of this Licence prepared by a Professional Engineer within ninety (90) days of completion of the Modifications.	Part G, Item 3	Part H, Item 3	Same condition in both licences. Minor wording change for clarity.		The words "stamped and signed" are not contained in the Main Licence. Although BHP Billiton does not view this change as necessary to facilitate amalgamation, BHP Billiton does not object provided that the corresponding change proposed above for Part H, Item 1 is also implemented as a means of providing a consistent scope for the application of this clause.	Board staff recommendation: Maintain wording of currently proposed clause as the added words clarify the licence and do not change the meaning if the item. Board decision: Accept staff recommendation.
PART I: Conditions Applying to Contingency Planning						
1. The Licensee shall review and update the Board approved Contingency Plan as necessary to reflect changes in operation and technology and sixty (60) days prior to the Construction of <u>both</u> the Sable and Pigeon pits. Any proposed amendments shall be in accordance with the INAC's NWT Water Board's "Guidelines for <u>Spill</u> Contingency Planning, 2007 January 1987, " or subsequent editions, and shall be submitted to the Board for approval.	Part H, Item 1	Part J, Items 1 and 3	Main Licence language used; updated to include SPB Development.			
2. If not approved by the Board, the Contingency Plan referred to in Part I, Item 1 shall be revised and resubmitted within thirty (30) days of receiving notification of the Board's decision.	Part H, Item 2	Part J, Item 2	Same condition in both licences.			
3. If, during the period of this Licence, an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:	Part H, Item 3	Part J, Item 4	Main Licence language used.			
a) implement the Contingency Plan;	Part H, Item 3(a)	Part J, Item 4(a)	Main Licence language used.			
b) report the incident immediately via the 24 Hour Spill Reporting Line (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593 or subsequent editions; and	Part H, Item 3(b)	Part J, Item 4(b)	Same condition in both licences.			
c) submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.	Part H, Item 3(c)	Part J, Item 4(c)	Same condition in both licences.			
4. All Unauthorized Discharges of water or Waste shall be reclaimed to the satisfaction of an Inspector.	Part H, Item 4	N/A	From Main Licence			
5. The Licensee shall operate in accordance with the Hydrocarbon-Contaminated Materials Management Plan, as approved by the Board and shall describe the following:	Part H, Item 5	N/A	Language updated to reflect the fact that this plan has been approved since the last licence were written.			
a) locations and designated uses of existing or planned facilities used for storage, treatment, disposal or management of hydrocarbon-contaminated solids and liquids;	Part H, Item 5(a)	N/A	From Main Licence			
b) general description of the facilities described under Part I, Item 5(a);	Part H, Item 5(b)	N/A	From Main Licence			

c) operating history of existing facilities and chemical characteristics of existing stockpiles of hydrocarbon-contaminated materials;	Part H, Item 5(c)	N/A	From Main Licence			
d) general description of the planned activities and processes for storage;	Part H, Item 5(d)	N/A	From Main Licence			
e) monitoring, treatment, and disposal or management of hydrocarbon contaminated materials;	Part H, Item 5(e)	N/A	From Main Licence			
f) monitoring program to test for migration, leakage or Seepage of hydrocarbon contaminated materials;	Part H, Item 5(f)	N/A	From Main Licence			
g) process for review of information and amending the plan as necessary;	Part H, Item 5(g)	N/A	From Main Licence			
h) identification of ways to reduce the generation of hydrocarbon-contaminated materials; and	Part H, Item 5(h)	N/A	From Main Licence			
i) reporting to the Board on activities carried out under this plan, including details on the volumes of hydrocarbon-contaminated materials treated and treatment efficacy.	Part H, Item 5(i)	N/A	From Main Licence			
6. The Licensee shall operate under the Adaptive Management Plan, as approved by the Board that shall include, but not be limited to:	Part H, Item 7	N/A	Language updated to reflect the fact that this plan has been submitted since the last licence were written.			
a) monitoring and research program that is designed to meet the needs of the Adaptive Management Plan;	Part H, Item 7(a)	N/A	From Main Licence			
b) identification of contaminants of interest for <u>a</u> Adaptive <u>m</u> Management <u>p</u> lanning including at a minimum: total arsenic, total cadmium, total chromium, total copper, total lead, total molybdenum, total phosphorous, total zinc, chloride, nitrate, nitrite, total suspended solids, turbidity, BTEX as defined in the attached Surveillance Network Program and total dissolved solids;	Part H, Item 7(b)	N/A	From Main Licence			
c) derivation of numerical thresholds in the Receiving Environment for the contaminants of interest;	Part H, Item 7(c)	N/A	From Main Licence			
d) appropriate triggers for the numerical thresholds referred to in Part I, Item 6(c);	Part H, Item 7(d)	N/A	From Main Licence			
e) response procedures, mitigation measures and treatment options if triggers are activated;	Part H, Item 7(e)	N/A	From Main Licence			
f) linkage with the Aquatic Effects Monitoring Program and other Management Plans as appropriate; and	Part H, Item 7(f)	N/A	From Main Licence			
g) annual reporting to the Board.	Part H, Item 7(g)	N/A	From Main Licence			
7. The Licensee shall submit to the Board, for approval, by December 31, 2011, or at least one <u>two</u> years prior to Discharge from Two Rock Sedimentation Pond an update to the Adaptive Management Plan to address the Sable Development.	N/A	N/A	New condition		BHP Billiton requests that "by December 31, 2011, or..." be removed. The Life of Mine Plan is adaptive, such that a fixed date may not be appropriate. For example, the current Life of Mine Plan does not require any basic infrastructure	Board staff recommendation: Change the clause from "...by December 31, 2011, or at least one year..." to read "...at least two years prior to discharge...". This 2 year time frame

					development at the Sable site until 2015, which renders a 2011 submission date inappropriately early. BHP Billiton suggests that the requirement for "at least one year prior to" is more appropriate.	will allow sufficient review of the plan and allow BHP Billiton to submit this update closer to the time of the Sable development. Board decision: Accept staff recommendation.
8. If the plans referred to in Part I, Items 5 and 6 are not approved by the Board, the Licensee shall revise the plans according to the Board's direction and re-submit them to the Board for approval.	Part H, Item 8	N/A	From Main Licence.			
9. The Licensee shall implement the updated plans referred to in Part I, Items 5 and 6 as and when approved by the Board.	Part H, Item 9	N/A	From Main Licence.			
PART J: Conditions Applying to Aquatic Effects						
1. The Licensee shall submit to the Board for approval on or before December 31, 2006 a revised Aquatic Effects Monitoring Plan (AEMP), and every three years thereafter through the term of the Licence, or as directed by the Board, to determine the short- and long-term effects in the Receiving Environment resulting from the Project, to test impact predictions and to measure the performance of operations and effectiveness of impact mitigation.	Part I, Item 1	Part K, Item 10	Main Licence language used.			
2. The Licensee shall submit to the Board for approval at least one (1) year prior to commencement of Construction at each of the Pigeon pit or Sable pit an update to the Aquatic Effects Monitoring Plan to include those sampling stations necessary to determine short- and long-term effects in the Receiving Environment as a result of the Pigeon and Sable Developments.	N/A	Part K, Item 2	New condition.			
3. Generally, the plan referred to in Part J, Item 1 for the Aquatic Effects Monitoring Program shall include, but not be limited to, the following:	Part I, Item 2	Part K, Item 3	Main Licence language used.			
a) clearly identifiable objectives of the Aquatic Effects Monitoring Program;	Part I, Item 2(a)	Part K, Item 3(a)	Main Licence language used.			
b) a description of the area to be monitored including maps showing all sampling and control sites, as well as the overall Zone of Influence of the Project;	Part I, Item 2(b)	Part K, Item 3(b)	Main Licence language used.			
c) an evaluation of all available data including baseline data, and data collected under the Surveillance Network Program and the Aquatic Effects Monitoring Program and a description of how any additional data will be integrated with the existing Aquatic Effects Monitoring Program;	Part I, Item 2(c)	Part K, Item 1	Main Licence language used.			
d) a description of the sampling program that will be conducted throughout the term of this Licence to achieve the objectives of the Aquatic Effects Monitoring Program including the variables, sample media, monitoring protocols and Quality Assurance/Quality Control procedures;	Part I, Item 2(d)	Part K, Item 3(d)	Same conditions in both licences.			
e) statistical design criteria, including a description of sampling frequencies for each parameter that ensures both accurate characterization of short-term variability and the collection of sufficient data to establish long-term trends;	Part I, Item 2(e)	Part K, Item 3(e)	Same conditions in both licences.			
f) a description of procedures to analyze and interpret data collected and procedures to identify and address information gaps;	Part I, Item 2(f)	Part K, Item 3(f)	Main Licence language used.			
g) a description of evaluation criteria for the Aquatic Effects Monitoring Program and approaches to amend and refine the Aquatic Effects Monitoring Program;	Part I, Item 2(g)	Part K, Item 3(g)	Main Licence language used.			
h) a description of how the results of the Aquatic Effects Monitoring Program will be	Part I, Item 2(h)	Part K, Item 3(h)	Same conditions in both licences.			

incorporated in the overall adaptive management strategies employed by the Licensee;						
i) a description of how proposed changes in monitoring protocols will be calibrated to previous monitoring procedures and data sets so that continuity, consistency, validity and usability of monitoring results will be maintained; and	Part I, Item 2(i)	Part K, Item 3(i)	Main Licence language used.			
j) a comparison of effects in the aquatic environment to those predicted in the Environmental Impact Assessment and the Licensee's impact predictions and an assessment and rationale of how the results of this comparison are incorporated into revisions to the Aquatic Effects Monitoring Program.	Part I, Item 2(j)	N/A	From Main Licence.			
4. Specifically, the AEMP shall include, but not be limited to, the following elements:	Part I, Item 3	Part K, Item 4	Same conditions in both licences.	Section should be renumbered "4" and subsequent sections accordingly.	BHP Billiton agrees with this comment from IEMA	Board staff recommendation: Accept IEMA's recommendation. Board decision: Accept staff recommendation.
a) a process for measuring Project-related effects in:	Part I, Item 3(a)	Part K, Item 4(a)	Same conditions in both licences.			
i. water quality,	Part I, Item 3(a)(i)	Part K, Item 4(a)(i)	Same conditions in both licences.			
ii. sediment quality, transport and deposition,	Part I, Item 3(a)(ii)	Part K, Item 4(a)(ii)	Same conditions in both licences.			
iii. surface and shallow groundwater flow regimes, fish migration routes and lake recharge rates, retention times and dilution factors,	Part I, Item 3(a)(iii)	Part K, Item 4(a)(iii)	Main Licence language used.			
iv. structure, abundance and productivity of phytoplankton, periphyton, zooplankton, benthic macro invertebrates and fish communities,	Part I, Item 3(a)(iv)	Part K, Item 4(a)(iv)	Main Licence language used.			
v. contaminant levels in fish tissues and indicators of fish health, and	Part I, Item 3(a)(v)	Part K, Item 4(a)(v)	Same conditions in both licences.			
vi. the taste of fish in water bodies downstream of the Long Lake Containment Facility that shall be completed with the communities. The Licensee shall identify the water bodies to be sampled and the frequency of sampling;	Part I, Item 3(a)(vi)	N/A	From Main Licence.			
b) the establishment of sufficient control sites outside the immediate Zone of Influence of mining operations and associated activities to provide the necessary information on reference conditions including:	Part I, Item 3(b)	Part K, Item 4(c)	Main Licence language used.			
i. a detailed rationale for site selection,	Part I, Item 3(b)(i)	Part K, Item (c)(i)	Main Licence language used.			
ii. an assessment of adequacy of existing data for representing predevelopment conditions, and	Part I, Item 3(b)(ii)	Part K, Item (c)(ii)	Main Licence language used.			
iii. an appraisal of the degree to which each site is representative;	Part I, Item 3(b)(iii)	Part K, Item (c)(iii)	Same condition in both licences			
c) the establishment of sufficient monitoring sites within the Zone of Influence including sites located at:	Part I, Item 3(c)	Part K, Item 4(d)	Same condition in both licences.			
i. lakes in the vicinity of the Project including, but not limited to, Leslie Lake, Moose Lake, Slipper Lake, Nema Lake, and connecting streams,	Part I, Item 3(c)(i)	N/A	From Main Licence.			
ii. lakes in the vicinity of the Misery operation and connecting streams,	Part I, Item 3(c)(ii)	N/A	From Main Licence.			
iii. Lac de Gras in the vicinity of the outflow of Slipper Lake,	Part I, Item	N/A	From Main			

	3(c)(iii)		Licence.			
iv. Lac du Sauvage in the vicinity of the Misery operation,	Part I, Item 3(c)(iv)	N/A	From Main Licence.			
v. lakes in the vicinity of the Sable Development (when constructed) including, but not limited to, Horseshoe Lake and outflow, Ulu Lake, Ross Lake and outflow, Lower Exeter Lakes, and connecting streams,	N/A	Part K, Item 4(d)(i)	From SPB Licence.			
vi. lakes in the vicinity of the Pigeon Development (when constructed) including, but not limited to, Upper Exeter Lake, Pigeon Fay Stream and Fay Lake, and	N/A	Part K, Item 4(d)(i)	From SPB Licence.			
vii. any additional sites necessary to evaluate the spatial extent of impacts associated with the Project;	Part I, Item 3(c)(v)	Part K, Item 4(d)(iii)	Same condition in both licences.			
d) a description of the procedures that will be used to minimize the impacts of the AEMP on fish populations;	Part I, Item 3(d)	Part K, Item 4(b)	Main Licence language used..			
e) a description of the procedures that will be used to assess the accuracy of the Licensee's impact predictions and to evaluate the effectiveness of their proposed mitigation measures;	Part I, Item 3(e)	Part K, Item 4(g)	Main Licence language used.			
f) a detailed description of how the data collected in the Aquatic Effects Monitoring Program will be used to identify the need for additional mitigation strategies to minimize the impacts of the Project;	Part I, Item 3(f)	Part K, Item 4(f)	Main Licence language used.			
g) an evaluation of the contaminant loads associated with Waste resulting from dust deposition, from the Sable Pit Development, to the aquatic environment;	N/A	Part K, Item 4(i)	This condition only applies to the Sable Development.			
h) a summary of how the Traditional Knowledge will be collected and incorporated into the Aquatic Effects Monitoring Program; and	Part I, Item 3(g)	N/A	From Main Licence.			
i) <u>an descriptionevaluation of howthe Project-related cumulative effects on the aquatic receiving environment in Lac de Gras region will be evaluated, including the that may contribute to cumulative effects in the regionof contaminant loadings.</u>	Part I, Item 3(h)	Part K, Item 4(h)	Main Licence language used.		BHP Billiton supports the alternate wording proposed by the Board Staff in their April 27, 2009 letter.	Board staff recommendation: Accept the new wording as Board staff's proposed wording was supported by both BHP Billiton and INAC. Board decision: Accept staff recommendation.
4. The Licensee shall implement the plan referred to in Part J, Item 1 for the Aquatic Effects Monitoring Plan as and when approved by the Board.	Part I, Item 4	Part K, Item 7	Main Licence language used.			
5. The Licensee may at any time propose amendments to the plan referred to in Part J, Item 1 for the Aquatic Effects Monitoring Plan for approval by the Board.	Part I, Item 5	N/A	From Main Licence			
6. The Licensee shall file as part of the AEMP Annual Report the following information:	Part I, Item 6	Part K, Item 9	Same condition in both licences.			
a) a summary of activities conducted under the Aquatic Effects Monitoring Program;	Part I, Item 6(a)	Part K, Item 9(a)	Same condition in both licences.			
b) tabular summaries of all data and information generated under the Aquatic Effects Monitoring Program in an electronic and printed format acceptable to the Board;	Part I, Item 6(b)	Part K, Item 9(b)	Same condition in both licences.			
c) a scientifically defensible interpretation and discussion of the data, including data collected	Part I, Item 6(c)	Part K, Item 9(c)	Main Licence language used.			

as part of snow quality surveys;						
d) an assessment of any identified environmental changes relative to baseline conditions that occurred as a result of the Project;	Part I, Item 6(d)	Part K, Item 9(d)	Same condition in both licences.			
e) an evaluation of the overall effectiveness of the Aquatic Effects Monitoring Program to date; and	Part I, Item 6(e)	Part K, Item 9(e)	Same condition in both licences.			
f) every third annual report for the Aquatic Effects Monitoring Program, commencing with the report on the 2005 sampling period, shall include a summary of the results of the Aquatic Effects Monitoring Program from Project inception, and a comparison of effects in the aquatic environment for all parameters monitored to those predicted in the Environmental Impact Assessment	Part I, Item 6(f)	Part K, Item 9(g)	Main Licence language used.			
PART K: Conditions Applying to Closure and Reclamation				It is INAC's opinion that the conditions applying to the closure and reclamation plan should continue to be listed in the water license irrespective of whether or not they are listed in the terms of reference for the ICRP	BHP Billiton supports the changes proposed by the Board Staff as a matter of clarity for the licence.	Board staff recommendation: The requirements for those clauses in the licence are spent. It is no longer necessary to include them in the licence. Board decision: Accept staff recommendation.
1. The Licensee shall operate under the Interim Closure and Reclamation Plan, as approved by the Board and in accordance with directives from the Board.	Most of the conditions related to Closure and Reclamation for both the SPB and Main Licence have been captured in the "Terms of Reference" for the EKATI ICRP (2006) and in the subsequent ICRP that has been submitted by BHP Billiton. The remaining terms are necessary for the Board to continue the management of Closure and Reclamation at the EKATI site.					
2. Updates to the Interim Closure and Reclamation Plan will be in accordance with the "Terms of Reference for the EKATI ICRP", approved in May 2006, and shall be submitted to the Board for approval.						
3. The Licensee shall implement the Interim Closure and Reclamation Plan as approved by the Board in accordance with the schedules and procedures specified in the plan and endeavor to carry out progressive reclamation of areas as soon as is reasonably practicable.						
4. The Licensee shall review the approved Interim Closure and Reclamation Plan annually, and shall revise the plan as as necessary to reflect changes in operations and technology or to incorporate results from reclamation research studies. All proposed amendments to the plan shall be submitted to the Board for approval.				Remove 'as'- "shall revise the plan as as necessary."	BHP Billiton agrees with this comment from ENR	Board staff recommendation: Accept ENR's recommendation. Board decision: Accept staff recommendation.
5. The Licensee shall, a minimum of twenty four (24) months prior to mine closure, submit to the Board for approval a Final Closure and Reclamation Plan.						
6. The Licensee shall revise the Terms of Reference, referred to in Part K, Item 2, or the Interim or Final Closure and Reclamation Plans as required by the Board, for its approval within timelines specified by the Board.						

APPENDIX 2: List of conditions from the SPB Licence (MV2001L2-0008) that are not being included in the Amended Licence (W2009L2-0001)

Condition # of SPB Licence	Definition or Condition	Notes or Explanation	Reviewer Comments (IEMA Comments) (INAC Comments) (ENR Comments)	BHP Billiton Response	WLWB Response
Part A, Item 2: Definitions	Amendment	Used only one time in licence; considered an unnecessary definition			
Part A, Item 2: Definitions	Aquatic Receiving Environment	Not used in SPB Licence.			
Part A, Item 2: Definitions	Beartooth Pit	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Dyke Seepage	Not used in SPB Licence.			
Part A, Item 2: Definitions	Engineered Structures	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Geotechnical Engineer	Replaced with "Professional Engineer".			
Part A, Item 2: Definitions	Ground Ice	Considered an unnecessary definition.			
Part A, Item 2: Definitions	ICP Metal Scan	Defined in SNP section of licence.			
Part A, Item 2: Definitions	Metal Leaching	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Mine Design	Not used in SPB Licence.			
Part A, Item 2: Definitions	Mine Development Plans	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Minewater Settling Pond	Not used in SPB Licence.			

Definitions					
Part A, Item 2: Definitions	Pigeon Pit	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Sable Pit	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Spillway	Not used in SPB Licence.			
Part A, Item 2: Definitions	Tailings/Processed Kimberlite	Not used in SPB Licence.			
Part A, Item 2: Definitions	Toe Berm	Not used in SPB Licence.			
Part A, Item 2: Definitions	Update	Considered an unnecessary definition.			
Part A, Item 2: Definitions	Waste Disposal Facilities	Not used in SPB Licence.			
Part A, Item 2: Definitions	Waste Treatment Facilities	Not used in SPB Licence.			
Part A, Item 2: Definitions	Water Control System	Not used in SPB Licence.			
Part A, Item 2: Definitions	Water Diversion Structure	Not used in SPB Licence.	It is not clear why this would be dropped as the Pigeon Stream Diversion should be considered a water diversion structure.	In response to IEMA's comment, BHP Billiton supports removal of this definition on the basis that it is not used in the licence.	Board staff recommendation: To support the removal of 'Water Diversion Structure' as this definition is not used anywhere in the water licence. Board decision: Accept staff recommendation.
Part A, Item 2:	Water Intake Facilities	Not used in SPB Licence.			

Definitions					
Part A, Item 2: Definitions	Water Licence Application	Not used in SPB Licence.			
Part A, Item 2: Definitions	Water Retention Dam	Not used in SPB Licence.			
Part B, Item 2	“Development of the Pigeon and Sable pits should be limited to those activities solely and sequentially required for the construction, mine operation, fish habitat compensation, reclamation and abandonment phases of those sites.”	Not necessary.			
Part B, Item 7	“The Licensee shall include a brief executive summary in each of the reports required to be submitted to the Board within this Licence.”	Not necessary.			
Part E, Item 1	“Upon issuance of this Licence, the Licensee is authorized to dewater Beartooth, Sable, and Pigeon Pond, construct a sedimentation dam in Two Rock Lake, construct a dyke in Two Rock Lake, construct Bearclaw Dam, divert water from Bearclaw to North Panda stream, and divert Pigeon stream in compliance with the terms and conditions in the Licence.”	This is covered in the Scope section; therefore this condition is no necessary.			

Part E, Items 10, 11, and 12	Requirement for an “operation and Management Plan for the Two Rock Sedimentation Pond.	The plan required in this section seems unnecessary since the required information must be provided in the Dewatering or Drawdown Plan required in Part E, Item 1.	A Dewatering and Drawdown Plan may deal with the initial draining of Two Rock Lake but there should be an operational plan for the Two Rock Sedimentation Pond.	In response to IEMA’s comments, under Part G, Item 1 BHP Billiton is required to submit an updated Wastewater and Processed Kimberlite Management Plan (WPKMP) which will provide the operational and management plan for Two Rock Sedimentation Pond. The routine release of compliant water during mine operations from the Two Rock Sedimentation Pond is not a Drawdown, rather it is a Discharge and it is appropriate to include it in the WPKMP.	Board staff recommendation: To support the removal of this requirement because an update to the Wastewater and Processed Kimberlite Management Plan (WPKMP) will provide the additional operational details not covered by the Dewatering and Drawdown plan. Board decision: Accept staff recommendation.
Part F, Item1	Requirement for an updated Mine Plan	This information is already required as part of the Annual Report (see Part B, Item 1))			
Part F, Item 2(b)	Requirement for “specific threshold limits at which point management action will be undertaken...”	Requirement is covered by Adaptive Management Plan			
Part F, Item 4	“Construction of designed structures shall not commence until the design drawings referenced in Part F, Item 2 have been approved by the Board. Any changes to the	The Construction Plans are already for approval, therefore construction cannot occur without Board approval.			

	Design or Construction Plan are subject to the Board's approval as outlined in Part H.”				
Part F, Item 8	Requirement for final detailed design report for the Drainage Control and Collection System at SPB	Requirement is covered by Part F, Item 2 of amalgamated licence.			
Part F, Item 9	Requirement to contain runoff from receiving environment.	The proponent is already required to do this.			
Part G, Item 1(a), (vii) to (xi)	Requirements for the Wastewater and Processed Kimberlite Management Plan	Measures listed are either already required in other sections of the Licence (i.e., Part B Annual Report, or SNP) or unnecessary.			
Part G, Item 2(a), (vi) to (vii)	Requirements under the Acid Rock Drainage and Geochemical Characterization and Management Plan	Deemed unnecessary given the other conditions.			
Part G, Item 10	Requirement for chronic toxicity tests on effluent.	Requirement has been moved to SNP.			
Part G, Item 12	Requirement for water that does not meet the effluent quality criteria to be stored in Two Rock Sedimentation Pond.	Condition unnecessary since company would be out of compliance if they discharged water or waste to the receiving environment that did not meet the effluent quality criteria.			
Part I, Item 1	Requirement for Terms of Reference for “studies to address the potential of converting the mined-out kimberlite pipes into pit lakes”	This condition was satisfied during the term of the SPB licence and have been incorporated into the Interim Closure and Reclamation	IEMA does not believe that this condition was totally satisfied. Task #7, as it relates to fish passage, has not been addressed. IEMA	In response to IEMA’s comments, BHP Billiton supports the removal of the clause on the basis provided by the Board staff.	Board staff recommendation: Any outstanding studies or requirements (i.e., fish

		Plan.	acknowledges that the issue is now being addressed within the ICRP process.		<p>passage) that the company will have to comply with will be addressed in the upcoming version of the ICRP.</p> <p>The Board's jurisdiction regarding fish habitat will be addressed by the upcoming public hearing.</p> <p>Board decision: Accept staff recommendation.</p>
Part I, Item 2	<p>"The Licensee shall submit to the Board for approval within three (2) months of issuance of this Licence, a terms of reference for a tundra soil study. The report should describe the results of field investigations of tundra soil behavior and interactions with waste rock run-off and include an outline of proposed dates for deliverables."</p>	<p>This condition came out of a recommendation from IEMA in its intervention dated March 13, 2002 meant to address a lack of detail on how run-off from waste rock piles might be filtered by the tundra soil before reaching the aquatic receiving environment. The report was never submitted although BHPB has performed site specific studies on this issue as a result of findings from its seepage survey results (Sept. 28, 2007). This study was meant to provide predictions on tundra soil</p>			

		behavior early on in the term of the licence; however, real data has now been collected and it is not clear how useful such a study is at this time. Also, the Board may, as part of the approval of the Seepage Survey Report required in Part G, Item 4(f), direct BHPB to perform site-specific studies on this issue as needed during the term of the licence.			
Part I, Item 3	The requirement for the determination of an “appropriate criteria for regulating Chloride levels within the Sable, Pigeon and Beartooth expansion”.	As discussed at the Public Hearing on March 4-5, 2009, chloride is not a contaminant of concern for the Sable, Pigeon and Beartooth Pits since mining of these pits is all done above permafrost and the chloride-laden groundwater does not inflow to the pits. However, chloride concentrations in the LLCF are rising due to the inflow of groundwater into some pits covered under the Main Licence and this is why the development of a threshold for chloride is required under the Adaptive Management Plan (Part I, Item 6 of the amalgamated	Development of a threshold is not the same thing as establishment of a discharge criterion. The Agency is of the view that a discharge limit should be set in a later licence, in addition to the development of a threshold in the Adaptive Management Plan.	In response to IEMA’s comments, BHP Billiton supports the removal of the clause on the basis provided by the Board staff.	Board staff recommendation: Removal of this requirement as BHP Billiton has never been required to develop a discharge criterion thus far, only a Water Quality Objective (WQO), and only for the SPB site. Board staff agree that a threshold is not the same thing as a discharge criterion. If IEMA believes that an ECQ for chloride is necessary, they are welcome to present rationale to the

		licence).			Board at any time. BHP Billiton is currently developing a site-wide WQO for chloride under the Adaptive Management Plan (AdMP). Board decision: Accept staff recommendation.
Part K, Item 4(d)(ii)	The requirement for AEMP sites located at “far field sites, including deeper basins”	This condition was not part of the Main Licence and did not seem to add value since there is also a condition for “any additional sites necessary to evaluate the spatial extent of impacts associated with the Project.”			
Part K, Item 8	Requirement for Licensee to resubmit a revised AEMP in 30 days if the previous AEMP is not approved.	This condition is unnecessary.			
Part K, Item 9(f)	“recommendations for refining the AEMP to improve its effectiveness as required,”	This condition is not in the Main Licence as written; however, there is a requirement to revise the AEMP every three years and this will be sufficient to ensure that the AEMP is improved as necessary.			

Part L	Conditions relating to Closure and Reclamation	All of the conditions related to Closure and Reclamation for both the SPB and Main Licence have been captured in the "Terms of Reference for the EKATI ICRP" (as approved in May 2006) and in the subsequent Interim Closure and Reclamation Plan (ICRP) that has been submitted by BHPB. There was no longer any need to list all the conditions in the amalgamated licence.			
SNP D.6	Requirement for Air Quality Monitoring.	The requirement for Air Quality Monitoring has been removed as the company is already required to do it under the Environmental Agreement. Also note that the incorporation of dust monitoring data in the AEMP is required as per Part J, Item 3(g).	The reference is really Item 4 as there are two items with the number 3. This clause is restricted to the Sable Pit. In addition, dust is only part of understanding air quality. For example, how would any effects of emissions from the incinerator on nearby lakes be detected? IEMA would prefer to see this clause remain.	In response to IEMA's comments, BHP Billiton agrees with the Board Staff's commentary that this clause be removed. See also BHP Billiton's comments in the attached cover letter which responds to the Board Staff's alternate wording for Part J, Item 3(g).	Board staff recommendation: Monitoring air quality is a requirement of the Environmental Agreement and it is open to any party to provide the Board with evidence that airborne emissions are affecting water at any time. Board decision: Accept staff recommendation.

APPENDIX 3: Surveillance Network Program (SNP) for W2009L2-0001 – Explanation of Changes and Amalgamation of Conditions from Main and SPB Licences

N.B. Only those conditions or definitions that have been changed are listed in this table.

Condition In DRAFT Amended Licence that has been changed	Notes	Explanation of Change to SNP (Main Licence = MV2003L2-0013; SPB Licence = MV2001L2-0008)	Reviewer Comments (IEMA Comments) (INAC Comments) (ENR Comments)	BHP Billiton Response	WLWB Response
A. Location and Description of Sampling Stations					
SNP A		As per BHPB's recommendation, Figures depicting the location of SNP sites will be added.			
SNP A		In the amalgamated licence, stations from the SPB Licence have been listed directly below the stations from the Main Licence. Definitions for SNP Stations from Main Licence (all prefaced with "1616-") remain unchanged.			
0008-Pi1	Definition change.	Station 0008-Pi1 is no longer defined as a "point of compliance" since water from the pit will go to the LLCF and does not enter the receiving environment.			
0008-Pi2	Definition change.	SNP 0008-Pi2 is now described as "Pigeon Pit Minewater" instead of "Pigeon Pit Sump" for clarity.			
0008-Pi5	Definition change.	Station 0008-Pi5 is meant to monitor water quality into the Exeter watershed; however, this location is more appropriate in the AEMP and is already a requirement under Part JG , Item 43 (ca)(vi) of the amalgamated licence. Rather than deleting the reference, the station has been listed as "permanently		BHP Billiton suggests the correct reference for this clause is Part J, Item 3(c)(vi)	Board staff recommendation: Accept BHP Billiton's

		inactive”.			<p>recommendation to correct licence reference. The correct reference should be Part J, Item 4(c)(vi).</p> <p>Board decision: Accept staff recommendation.</p>
0008-Sa2	Definition change.	This station is now described as “Sable Pit Minewater” instead of “Sable Pit Sump” for clarity.			
0008-Sa7	Definition change.	Station 0008-Sa7 is meant to monitor water quality into the Exeter watershed; however, this location is more appropriate in the AEMP and is already a requirement under Part JG , Item 43 (ca)(v) of the amalgamated licence. Rather than deleting the reference, the station has been listed as “permanently inactive”.		BHP Billiton suggests the correct reference for this clause is Part J, Item 3(c)(v)	<p>Board staff recommendation:</p> <p>Accept BHP Billiton’s recommendation to correct licence reference. The correct reference should be Part J, Item 4(c)(v).</p> <p>Board decision: Accept staff recommendation.</p>
0008-Sa6	Definition change.	Originally Station 0008-Sa6 was to be located at 400m from the Discharge; it has been changed to 200m to correspond with the model of predicted effluent concentrations BHPB presented at the Public Hearing on March 4-5, 2009.	<p>The following comment has been moved from ‘0008-Sa9’ as Board staff believe this comment was intended to address 0008-Sa6.</p> <p>It states that this station</p>	In response to IEMA’s comments, BHP Billiton would like to clarify that a mixing zone has not been proposed or defined. As described in previous information, on record, BHP Billiton’s	<p>Board staff recommendation:</p> <p>Retain the current wording of the clause as this change from 400m to 200m doesn’t</p>

			has been changed to 200m to correspond with the mixing model BHP presented at the Public Hearing. It is INAC's understanding that the mixing model was for 20m due to the limitation of the resolution of the model being used. A 200m mixing zone is a much greater area than was previously understood.	reference to 20m was the level of resolution of the Horseshoe Lake mixing model.	alter the fact that additional SNP stations (Sa9) will be activated following the plume delineation study. Board decision: Accept staff recommendation.
0008-Sa9	Definition change.	Station 0008-Sa9 has been added with the following description: "Horseshoe Lake, location to be determined as per Part G, Item 21 and 22. Rationale: To verify the characteristics of initial mixing of effluent from Two Rock Sedimentation Pond in Horseshoe Lake close to end of pipe." Analysis requirements for this station have not been defined yet.	Furthermore, a SNP station should be as close to the diffuser as possible, pending the results of the plume delineation study to be performed (i.e. Clause 21).	In response to IEMA's comments, BHP Billiton believes that the SNP stations should be appropriately located to collect meaningful data, based on the results of the plume delineation study.	Board staff recommendation: Maintain the current wording as Part G, Item 21 and 22 will dictate the location of SNP station 0009-Sa9. Board decision: Accept staff recommendation.
0008-Sa10 (addition)	Added Definition.	Station 0008-Sa10 has been added as per BHPB's recommendation to monitor the upstream portion of the Two Rock Sedimentation Pond.			
0008-Be2	Definition change.	SNP 0008-Be2 is now described as "Beartooth Pit Minewater" instead of "Beartooth Pit Sump" for clarity.			
B. Sampling and Analysis Requirement					

B.1 – B.12	Previously B.1 to B.12 in Main Licence	In the amalgamated licence, conditions from the SPB Licence have been listed directly below the conditions from the Main Licence. The Main Licence conditions are #1-12, the SPB conditions are #13-20. None of the requirements from the Main Licence have been changed.			
SNP B	Notes section.	The definitions of chemical analysis groupings (e.g., Major Ions, ICP Metal Scan, Nutrients etc) were different in the SPB Licence compared to the Main Licence. Instead of actually changing the analysis requirements for the SNP stations, some of the definition names have been re-named (see “Notes” section at the end of the SNP’s Part B).			
B.13	Previously B.1 in SPB Licence.	Item 13 in the amalgamated licence: reference to 0008-Pi6 has been removed as that station is in place to monitor seepage from waste rock piles and has sampling requirements more appropriately in Item 20 of the amalgamated licence. The following sentence has been added to this condition at the request of BHPB and for clarity: “Sampling of Stations 0008-Pi3 and 0008-Pi4 to commence with Construction of the Pigeon Stream Diversion Channel.”			
B.14	Previously B.2 in SPB Licence	The underlined words were added to this condition as follows: “Water at Station Number 0008-Pi4 shall be sampled every two-weeks during periods of flow and analysed for pH and Total Suspended Solids, and sampled monthly <u>during periods of flow and analysed for an ICP Metal Scan-2⁹. <u>Sampling of this station to commence with Construction of the Pigeon Stream Diversion Channel.</u>” The first addition clarifies that sampling is only required or possible during periods of flow.</u>			
B.15	Previously B.3 in SPB Licence	The following sentence was added to this condition at the request of BHPB: “Station Number 0008-Sa3 will be sampled at times when <u>D</u> ewatering of Sable Lake flow into Two Rock Sedimentation Pond and when Discharging from Two Rock Sedimentation Pond”		BHP Billiton suggests that in the Draft Licence SNP B.15 there are 2 occurrences of the word “dewatering” that should	Board staff recommendation: Accept BHP Billiton’s

		Note that sampling at Station 0008-Sa3 during normal discharge is described in B.17 and B.19.		be capitalized.	recommendation that the word 'dewatering' be capitalized. Board decision: Accept staff recommendation.
B.16	Previously B.4 in SPB Licence	BHPB requested that the pit minewater/sump sampling frequency be reduced from daily to every two weeks during Discharge; however little rationale was given. Sampling frequency was changed to weekly in the amalgamated licence.		BHP Billiton suggests that the word "Discharge" should not be capitalized in SNP B.16 in the Draft Licence.	Board staff recommendation: That the word 'Discharge' remain capitalized as it is a defined term within the water licence. Board decision: Accept staff recommendation.
B.17	Previously B.5 in SPB Licence	The sampling frequency at Two Rock Sedimentation Pond (at both the outlet, 0008-Sa3, and in the upstream portion of the Pond, new station 0008-Sa10) has been reduced from daily to weekly during discharge at the request of BHPB. Spikes in contaminant levels during discharge are not expected due to the large storage capacity of Two Rock Sedimentation Pond; therefore, weekly sampling should suffice.			
B.18	Previously B.6 in SPB Licence	The requirement for sampling 0008-Pi3 has been removed from this list as it is being monitored with other similar sites in B.13. As well, the following clarification has been added: Sampling is to commence with Construction of the Sable Pit.			
B.19	Previously B.7 in SPB Licence	SNP, Part B, Item 7 of the SPB Licence has been replaced with SNP, Part B, Item 19 in the amalgamated licence. The new condition requires both acute and chronic toxicity tests on discharge from the Two Rock Sedimentation Pond.			

B.20	Previously B.8 in SPB Licence.	The requirements for sampling at 0008-Pi5 and 0008-Sa7 have been removed to be consistent with the inactivation of the stations (see rationale above).The requirement for sampling the new station 0008-Sa9 (in Horseshoe Lake) has been added. Also, the following clarification has been added: "Sampling is to commence with Construction of the Pigeon and Sable Pits."			
B.21 to B.25	Previously B.13-B.17 of Main Licence; and B.9-B.13 of SPB Licence.	These five conditions were the same in both licences and have not been changed in the DRAFT amalgamated licence.			
C. Flow and Volume Measurement Requirements					
SNP C		In the amalgamated licence, conditions from the SPB Licence have been listed directly below the conditions from the Main Licence.			
C.1 to C.7	Previously C.1 to C.7 of Main Licence.	These conditions have not been changed.			
C.8	Previously C.8 of Main Licence and C.6 of SPB Licence.	Condition corrected to read "...Sewage solids delivered to the Sewage Treatment Facilities" rather than "...Sewage solids removed from the Sewage Treatment Facilities.		BHP Billiton requests that this requirement be divided into two clauses C.8(a) and C.8(b). C.8(a) would comprise the existing wording in C.8 of the Main Licence and C.8(b) would comprise wording as follows: "The monthly and annual quantities in cubic metres of Sewage	Board staff recommendation: Accept BHP Billiton's recommendation based on follow-up discussions with BHP Billiton staff regarding the operations of the Sewage Treatment Facilities. Board decision:

				<p>delivered to the Sewage Treatment Facilities from the Sable and Pigeon Developments”</p> <p>The wording proposed by the Board Staff in the Draft Licence would change the current practice at the Main Site of measuring solids removed from the Sewage Treatment Facility.</p> <p>However, for Sable and Pigeon the most appropriate measurement would be what is being delivered to the facility from these sites. Sewage from these sites will be trucked to the Main Site facility for treatment.</p>	Accept staff recommendation.
C.9 to C.13	Previously C.1 to C.5 of the SPB Licence	These conditions have not <u>been</u> changed.		<p>BHP Billiton requests that SNP C.10 be removed from the licence as the requirement for lake levels in Ursula and Exeter lakes is specifically included in the Reclamation Research Plans that are</p>	<p>Board staff recommendation:</p> <p>These clauses remain until the ICRP has been approved.</p> <p>Board decision: Accept staff</p>

				part of the Interim Closure and Reclamation Plan that is currently before the Board for approval. This information is relevant to the ICRP and not the SNP.	recommendation.
D. Other Monitoring Requirements					
D.1 to D.4	Previously D.1 to D.4 in both the Main and SPB Licence.	Conditions in this section were exactly the same in both licences.		BHP Billiton suggests that the numbering in SNP D in the Draft Licence should start back at 1.	
D.5	Previously D.5 of Main Licence and SPB Licence	Main Licence language used.			
N/A	Previously D.6 of the SPB Licence.	The requirement for Air Quality Monitoring has been removed as the company is already required to do it under the Environmental Agreement. Also note that the incorporation of dust monitoring data in the AEMP is required as per Part J, Item 3(g).			
E. Dam and Dyke Monitoring					
N/A	Previously E.1 of the SPB Licence.	The requirement for all dams and dykes to be inspected annually by a qualified engineer was only in the SPB Licence. It has not been added to the amalgamated licence since there are already conditions, in Section G, that require annual inspections of all facilities that contain dams or dykes.			

F. Reports				
F.1	Previously E.1 of the Main Licence and F.1 of the SPB Licence.	Conditions in this section were exactly the same in both licences.		