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1. Executive Summary

The Kitikmeot Inuit Association (KIA) has reviewed the Tahera Corporation's final Jericho Diamond Project Environmental Impact Statement (EIS) in conjunction with the Supplemental Report and Supporting Documents. Based on this review, the KIA is pleased to outline its position on this proposed project for the Nunavut Impact Review Board (NIRB).

The Jericho Diamonds Project represents an important economic opportunity for the Kitikmeot Region and for Nunavut. KIA and Nunavut Tunngavik Incorporated, on behalf of all Inuit have actively promoted mining development in Nunavut. Kitikmeot Inuit stand to benefit from jobs, contracting opportunities and from indirect benefits from this project related to economic growth in the region and in Nunavut. KIA anticipates finalizing its negotiation of an Inuit Impacts and Benefits Agreement with Tahera in the near future. Once signed, this agreement will guarantee benefits for Inuit.

While KIA supports appropriate mining development in the Kitikmeot, it also has important responsibilities to Kitikmeot Inuit to balance economic development with environmental protection, to protect the land, wildlife and Inuit lifestyles. This is the reason why KIA has played an active role in these NIRB and Nunavut Water Board (NWB) processes and why it will continue to urge that necessary environmental protection measure be included in the NIRB certificate, regulatory permits and licences granted for this project.

KIA also manages and regulates activities on its Inuit Owned Lands (IOL) and is the Designated Inuit Organization for the purpose of Article 20 Inuit water rights on these lands. Consequently, KIA will impose environmental protection terms and conditions on Tahera's use of IOL and the water on IOLs.

KIA retained expert consultants to assist it in the review of all materials submitted related to the Tahera EIS. In the Initial Review of the Final EIS, our consultants advised that there were significant problems with the background studies, analysis and design of certain aspects of the proposed mine. They also indicated at the time that the assessment of environmental impacts in the EIS suffered from significant deficiencies.

In May of this year, KIA reviewed, considered and accepted the advice of its consultants on these matters, identifying 18 significant concerns that we suggested to NIRB had to be addressed before the any approvals could be granted to Tahera. KIA also identified 18 moderate concerns which we suggested had to be addressed before any approvals could be granted, and 89 low significance issues which we suggested should be considered in order to improve the EIS and Tahera's impact mitigation and management processes.

NIRB subsequently decided to adjourn the Final Hearing in order to allow Tahera time to resolve the many issues identified by the KIA, other interveners, and NIRB. Tahera has used the intervening months constructively and has filed a Supplemental Report and Supporting

Documents. These new reports have been used to supplement KIA's analysis and to generate this current review.

With this Supplemental Information, the KIA with expert assistance has revisited 51 of the issues from our original review. This includes 17 of the significant issues originally raised, 17 of the moderate issues, and 17 'other issues' that were originally identified in KIA's May submission and the Rescan Environmental Services Ltd. report. The 17 other issues relate primarily to fisheries and wildlife concerns. Kitikmeot Inuit have guaranteed harvesting rights in the Nunavut Settlement Area and are the primary users of the land. As such, Kitikmeot Inuit have particular interest in ensuring the protection of these resources and the lifestyles they support.

Overall, it is KIA's position that Tahera responded adequately to 34 of the 51 issues reviewed. Tahera's new work satisfactorily addressed most of the high and moderate issues of significance raised by KIA. In particular the company responded to 29 of 34 high and moderate priority issues originally identified.

Nevertheless, after KIA's review of the response to these 51 issues there remains, there are still outstanding concerns with respect to mine design and the environmental mitigation and monitoring proposals made by Tahera. The KIA has identified five significant outstanding concerns with the design of the Jericho mine. These issues are addressed in Section 3 of our report. As well, the KIA has 2 recommendations related to environmental mitigation and 11 recommendations related to environmental monitoring.

In a number of instances in the Supplemental Information, Tahera has not dealt satisfactorily with the concerns raised, saying only that the details of the environmental monitoring plans will be confirmed after negotiations with regulatory agencies are complete. In other cases, there was no response from Tahera to the issues raised by KIA. There was no justification given for this. This lack of response may have been deliberate or an oversight. Most of these omissions relate to fisheries and wildlife issues.

This approach adopted by Tahera to legitimate concerns raised by KIA and other reviewers is a matter of important concern for the Kitikmeot Inuit Association. The problem is that the KIA has little direct influence on the outcome of negotiations between the proponent and regulatory agencies. KIA cannot guarantee that regulatory agencies will place as strong a focus on conservation of fish and wildlife as the KIA would like. If this approach is accepted, it will also undermine the effectiveness of these NIRB hearings.

The public hearings into the Final EIS and directives issued by Nunavut Impact Review Board (NIRB) are the KIA's principal methods of exerting oversight in these matters. NIRB should deal comprehensively with all issues raised in this proceeding. Environmental concerns should not be deferred to the regulatory process until NIRB decides whether they may constitute a significant environmental impact and, if so, makes mitigation recommendations.

The KIA and Tahera must finalize an IIBA, resolve water compensation issues, and negotiate the terms of surface land tenures before construction of the project may commence. These requirements are not tied directly to the NIRB processes and KIA is optimistic about the outcome of our negotiations with Tahera. It is KIA's view that we can, working cooperatively with Tahera resolve these matters concurrent with the regulatory process.

Subject to the outcome of this NIRB proceeding and the Board's consideration of the issues arising from KIA's analysis of the Final EIS and supplementary material, the KIA is pleased to advise that supports this development project in principle. Our support is however, conditional on the imposition of terms and conditions which address concerns we have outlined below and on the successful resolution of IIBA negotiation and water compensation issues.

2. Introduction

The Kitikmeot Inuit Association (KIA) is pleased to make this submission outlining the results of its review of the Tahera Corporation's (Tahera) Jericho Diamond Project final Environmental Impact Assessment (EIS) and the Supplemental Report and Supporting Documents to the Nunavut Impact Review Board (NIRB). The KIA, in collaboration with Nunavut Tunngavik Incorporated (NTI), retained Rescan Environmental Services Ltd. to assist in the preparation of this submission.

The KIA is the Regional Inuit Association (RIA) for the Kitikmeot region of Nunavut. The KIA is responsible for the implementation of those parts of the Nunavut Land Claims Agreement (NLCA) assigned directly to the RIA or assigned by the Board of Directors of NTI to KIA as a Designated Inuit Organization (DIO).

KIA is also broadly representative of Inuit beneficiaries of the NLCA in the Kitikmeot Region. KIA's Board includes representatives elected from all Kitikmeot Communities. KIA is involved in land management because it is the RIA responsible for Inuit owned surface lands in the Kitikmeot pursuant to Articles 19 and 21 of the NLCA. KIA is also responsible for the protection and management of water in, on or flowing through Inuit owned lands pursuant to Article 20 of the NLCA. KIA also has special interests related to wildlife and fisheries. Kitikmeot Inuit are primary users of the fisheries and wildlife resource and they have special provisions related to Inuit Harvesting (Article 5 of the NLCA) and wildlife compensation (Article 6 of the NLCA). KIA's interests in the environment and in the effects of the proposed Jericho Diamond Project are unique and go beyond those of a landowner and of many government agencies.

KIA is also the DIO in the Kitikmeot Region for purposes of Article 26 of the NLCA. The Jericho Diamond Project is a "Major Development Project" as defined in s.26.1.1 of the NLCA and the project proponent must negotiate an Inuit Impact and Benefits Agreement (IIBA) with the KIA before the Jericho project may commence. Although the successful completion of an IIBA with the KIA will be a major step toward the mitigation of the socio-economic impacts of the Jericho project, an IIBA would not by itself be evidence that all the socio-economic effects arising from the project have been mitigated. This is because an IIBA's scope can be limited. For example, through the negotiation of an IIBA, KIA will seek to ensure that jobs, contracting and other business opportunities and benefits are made available to Kitikmeot Inuit but the agreement will not address all of the potential social problems arising from the project. KIA therefore considers NIRB's role in examining socio-economic matters and any recommendations it may make to be an important component of the overall project approval process.

IIBA negotiations between KIA and Tahera have commenced but are not yet complete. KIA is not in a position to advise NIRB in detail about the Jericho project impacts and benefits which will be addressed in the IIBA.

The proposed Jericho Project will directly affect Inuit Owned Lands (IOL) Parcel CO-05 and will affect the waters on IOL parcel CO – 19/76L as well. Through its authorities as surface owner and its authorities over water and other matters of interest to Inuit, KIA will seek to encourage responsible development of this mining project. KIA will look to both the short and long term interests of Inuit in doing this. This means that the project's effect on water flowing in, on or through IOLs must be assessed and that any substantial effect must be the subject of either a compensation agreement or must be adjudicated by the NWB before the project can be licenced. KIA has addressed the issue of water compensation through its IIBA with Tahera.

The KIA will encourage and support mining developments that benefit Kitikmeot Inuit while protecting the land, water and wildlife upon which we depend.

KIA is not yet in a position to provide an unqualified endorsement of the Jericho Diamond Project, but assuming successful negotiation of an IIBA and water compensation as well as implementation of the environmental protection terms and conditions which will result from the Nunavut Impact Review Board (NIRB) and Nunavut Water Board (NWB) processes, KIA will actively support this project. At this time, KIA supports the project in principle.

We provide the details to support the KIA position in the parts of our presentation which follow. The presentation has been organized in a manner consistent with the instructions provided by NIRB.

Part 3 outlines the result of our review of the final Environmental Impact Statement (EIS) and the Supplemental Report and Supporting Documents. This review is based on the report provided by Rescan a complete copy of which is attached as Appendix 2.

Part 4 indicates additional KIA requirements of the proponent based on the NLCA which must be satisfied before the Jericho project can proceed.

Part 5 outlines KIA's recommendations and conclusions with respect to the Jericho Diamond Project.

3. Issues Identified in KIA Review of the Project

The original review conducted by Rescan and KIA identified some 125 issues or problems with the final Jericho Diamond Project EIS. The original review identified 18 high priority issues, 18 moderate priority issues and 89 low priority issues. In the review of the Supplemental Report and Supporting Documents, the KIA focused on 51 of the issues raised in its original review. These issues included 17 of the original high priority issues, 17 of the moderate priority issues, and 17 other issues that relate primarily to fisheries and wildlife.

Kitikmeot Inuit have guaranteed harvesting rights in the Nunavut Settlement Area and are the primary users of the land. As such, Kitikmeot Inuit have particular interest to assure that these resources are protected. Upon completing the review of the 51 issues, there remains outstanding issues concerning mine design and environmental mitigation and monitoring that are summarised below.

A. Mine Design

The following five issues are considered by the KIA as significant outstanding concerns related to the design and construction of the Jericho mine that were not addressed to our satisfaction in the Supplemental Information:

1. additional permafrost drilling should be conducted in the vicinity of the stream that exits Long Lake in order to establish and define the existence of a “stream talik” (Issue 29). This should be done prior to final design;
2. boreholes should be located on the north abutment of West Dam to establish the fracturing of the bedrock and the depth of the active zone. This information will govern the design and depth of the liner and cut-off trenches (Issue 29);
3. the location of the liner for the re-designed West Dam should be re-considered in light of KIA’s expert comments and Ekati’s experience (Issue 110);
4. Tahera should reconsider its decision to remove the divider dyke of the PKCA because the dyke would aid in progressive reclamation of the PKCA (Issue 111); and
5. The KIA strongly recommends that the tailings in the PKCA should be configured to prevent collection of water behind the dam to increase long-term safety and because that will avoid annual dam inspections into perpetuity (Issue 113).

B. Environmental Mitigation

The following mitigation issues remain as matters of concern to the KIA:

1. the fish habitat budget for the mine that will be used during “No Net Loss” negotiations with DFO should list the diversion channel for Stream C1 as a loss of habitat due to the slow rate of stream seasoning in Arctic environments (Issue 52); and
2. Tahera should provide more detailed plans for re-vegetating the mine after closure.

C. Environmental Monitoring

The following eleven monitoring issues have been identified by the KIA as issues that NIRB should consider when preparing its list of directives:

1. the PM2.5 fraction should be included as a variable in the air quality monitoring program from the beginning of mine operations because PM2.5 will eventually be included once the Canada Wide Standards are adopted and it would be useful to have a PM2.5 database from the beginning of mine operations (Issue 21);
2. regular monitoring of water quality throughout the water management system throughout the mine’s operating life is essential to ensure that the rate of internal loading of any or all constituents is less than 1%/year, as predicted by the models developed in the Supplemental Information (Issues 38, 40, 41, 54, 103, 104 and 107);
3. water quality monitoring should ensure that the phosphorus that will enter the PKCA from treated sewage effluent will indeed be largely absorbed by processed kimberlite and will not be exported in sufficient quantities to the receiving environment to initiate eutrophication (Issues 39 and 42);
4. nitrate concentrations must also be regularly monitored to ensure that the new CCME nitrate guideline is not exceeded in receiving waters (*e.g.*, Lake C3 and Carat Lake) (Issue 55);
5. a water quality monitoring station should be placed on the Jericho River downstream of Jericho Lake in order to define the downstream extent of the mine’s environmental influence (Issue 43);
6. a second control site must be established outside the Jericho Watershed to avoid problems that may arise if the first control site is found to be unsuitable for any reason (Issues 58, 66 and 79);
7. Tahera should follow the Canadian Metal Mining Environmental Effects Monitoring Protocol as a guide when sampling fish and analysing fisheries data (Issues 68 to 72);

8. Tahera should follow Ekati's example when sampling and assessing lichens for metal concentrations, particularly with regard to the number of sampling sites and the number of annual tissue samples (Issue 81);
9. Tahera should work co-operatively with other stakeholders to increase the scope and scientific value of its wildlife monitoring programs (Issues 84 and 92). There was a general lack of specificity to the wildlife monitoring programs in the Final EIS and the Supplemental Information;
10. Tahera should commit itself to a series of monitoring measures associated with spray irrigation: (1) collect soils and water samples from areas heavily affected by irrigation, (2) monitor the concentrations of major ions (*e.g.*, Ca, Mg, Na and K), (3) determine porosity and cation exchange capacity of the soil, and (4) incorporate weather conditions in operation of the irrigation system (Issue 109); and
11. additional archaeological investigation must be conducted by a qualified archaeologist holding a valid Nunavut Archaeologists Permit prior to the initiation of any construction activity (Issue 123).

It is also imperative from the Kitikmeot Inuit Association's perspective that NIRB hold Tahera accountable for the various environmental commitments made throughout the Supplemental Information documents. A list of these commitments should be compiled and they should be incorporated into the NIRB certificate in a manner which ensures that they are carried out.

D. Deferrals and Omissions Related to Wildlife and Fisheries

In a number of instances in the Supplemental Information, Tahera has not dealt satisfactorily with the concerns raised, saying only that the details of the environmental monitoring plans will be confirmed after negotiations with regulatory agencies are complete. In other cases, there was no response from Tahera to the issues raised by KIA. This lack of response may have been deliberate or an oversight and may be another tactic to defer an issue until later in the regulatory process. Most of these omissions and deferrals relate to fisheries and wildlife issues.

This approach adopted by Tahera to legitimate concerns raised by KIA and other reviewers is a matter of important concern for the Kitikmeot Inuit Association. The problem is that the KIA has little direct influence on the outcome of negotiations between the proponent and regulatory agencies. KIA's interests in the environment, fisheries and wildlife and in the effects of the proposed Jericho Diamond Project are unique and go beyond those of a landowner and of many government agencies. KIA cannot guarantee that regulatory agencies will place as strong a focus

on conservation of fish and wildlife as the KIA would like. If this approach is accepted, it will also undermine the effectiveness of these NIRB hearings.

The public hearings into the Final EIS and directives issued by Nunavut Impact Review Board (NIRB) are the KIA's principal methods of exerting oversight in these matters. NIRB should deal comprehensively with all issues raised in this proceeding. Environmental concerns should not be deferred to the regulatory process until NIRB decides whether they may constitute a significant environmental impact and, if so, makes mitigation recommendations.

Omissions and deferrals of KIA concerns made by Tahera that relate to wildlife and fisheries are provided below. The company:

- did not discuss the effects of water quality on zooplankton and how it may affect fish (Issue 51 & 54), and did not address whether the Char in Carat Lake are land-locked and how this may affect this population of fish (Issue 51);
- did not address which fish species would be the target for an Aquatic effects program (Issue 69) and deferred addressing the frequency, sample size, and parameters for monitoring fish populations and health until negotiations with Department of Fisheries and Oceans (DFO) and Environment Canada (EC) are complete (Issue 68 & 71);
- did not discuss why fish are not to be sampled in Lake C3, the lake most affected by discharge from the mine operations (Issue 70);
- did not address why the fisheries monitoring program would be discontinued if three years of data showed no effects, when this project will discharge into the water system for at least 8-10 years (Issue 72);
- deferred addressing that the stream C1 diversion will not be an effective mitigation for fish habitat until negotiations are completed with DFO (Issue 52);
- deferred any commitment to monitoring of wildlife other than caribou to government regulators (Issue 84);
- did not address KIA's recommendations for mitigation measures to reduce the impacts of wildlife on Caribou and large carnivores (Issue 94 & 95);
- did not propose or discuss how they would measure success of wildlife mitigation techniques used at the mine (Issue 85);
- deferred their plans for monitoring post-project wildlife recovery after mine closure until it is discussed with government regulators (Issue 92);

- did not address how the long-term liability of the open pit would be reduced (Issue 96).

Inclusive of all areas, Tahera should create a mitigation and monitoring plan for fisheries and wildlife that is developed in concert with all agencies, including KIA, as part of the NIRB directives.

E. Conclusion

There are a number of issues that remain outstanding after review of the Supplemental Report and Supporting Documents. The outstanding issues related to mine design must be dealt with before this mine can proceed. As well, the KIA has identified many environmental mitigation and monitoring issues that NIRB should consider when preparing its list of directives. The deferrals and omissions made by the proponent and how they should be addressed should be considered by NIRB when preparing its list of directives.

4. Other Responsibilities of the Proponent

The KIA on behalf of the Kitikmeot Beneficiaries under the NLCA, is the surface landowner of IOL Parcel CO-05, which is within the immediate footprint of the proposed Jericho Diamond Mine, located at the northwest corner of Contwoyto Lake. The proposed diamond mine is located about half on IOL Parcel CO-05 and half on Crown land.

The diamond mine will have the following structures on IOL Parcel CO-05:

- Coarse Tailings Stockpile,
- Waste dumps 1 & 2,
- Overburden stockpile,
- Ammonium Nitrate Storage,
- Explosives Magazines,
- Sediment collection pond,
- All weather road from the mine site to Contwoyto Lake; and
- Buildings such as an explosives truck wash and offices.

As mentioned, about one half of the mine infrastructure and storage areas are located on surface Inuit Owned Land.

The proponent Tahera , is required, under NLCA Article 21.7.11, to obtain surface land tenure for the development of the project, this will include quarrying agreements, land use licences and surface leases. Under the KIA's quarrying agreements, Tahera is required to pay for any specified substances including carving stone, as mentioned under Article 21.7.1 of the NLCA. Surface leases are commercial instruments which will be negotiated and will require a variety of commitments and payments by the proponent.

Under Article 20 Inuit are granted special water rights. Based on the plans outlined in the final EIS, it appears that Tahera will destroy small water bodies, change the flow, quantity and quality of water in, on or flowing through IOLs. Consequently it must negotiate compensation for any substantial effects on IOL waters and it may be required to pay for the use of waters over which Inuit have exclusive use rights. The KIA as the DIO under the NLCA will also collect water use fees where applicable.

Under Article 26, the proponent must negotiate an Inuit Impact and Benefits Agreement before the mine construction is commenced. The IIBA may address any matter which may reduce impacts on Inuit or which may confer a benefit on Inuit. The following issues are to be considered for negotiations (a full list is found in Schedule 26-1 of the NLCA):

- Employment and training,
- Employee and Community support system/programmes,

- Contracting/business opportunities,
- Traditional Culture and Area usage; and
- Education.

Based on the provisions of the NLCA, the IIBA must be completed before the project may commence (s.26.2.1). The word “commence” is not defined in the NLCA but it is KIA’s position that this means no significant activity related to project construction may commence until the IIBA is completed. The IIBA will contribute to the mitigation of the socio-economic effects of the project but it is not in our view a substitute for the socio-economic assessment requested by NIRB. The IIBA may be completed after the NIRB and NWB regulatory processes are complete.

Surface tenures will be based on the Rules and Procedures for the Management of Inuit Owned Lands and on specific negotiations between KIA and Tahera. The KIA will impose environmental protection terms and conditions on Tahera through its licences and leases. KIA manages its lands in a way which protects Inuit interests in the environment and water and which maximizes benefits for Inuit.

KIA will derive benefits from the use of water on IOL based on the rights granted in s.20.2.2 of the NLCA. These benefits will be included in the surface leases and licences for the Tahera site. KIA will also continue its scrutiny of Tahera’s water use and waste disposal plans. If mitigation proposal are insufficient in KIA’s view to ensure that substantial effect do not occur on waters on IOLs, KIA will proceed with a compensation claim. KIA’s current view is that substantial effects will occur. If we resolve our concerns with Tahera during our IIBA negotiations, we will abandon our compensation claim.

5. Recommendations and Conclusions

Based on KIA's review of this project we make the following recommendations to the NIRB:

1. The NIRB must ensure that all outstanding issues related to mine design are addressed and that appropriate terms and conditions to protect the environment and respond to these issues are included in the NIRB project certificate. The project should not proceed without these issues being addressed.
2. The NIRB should ensure that mitigation recommendations are implemented by the proponent. The terms and conditions related to these issues should be included in the NIRB project certificate to protect the environment. NIRB should also make appropriate recommendations with respect to the socio-economic impacts of the project.
3. The NIRB should ensure that the 11 monitoring recommendations set out above are implemented by the proponent. The terms and conditions related to these issues should be included in the NIRB project certificate to protect the environment.
4. NIRB should recommend an approach to assure that Kitikmeot Inuit and the NIRB are not left out of fisheries and wildlife issues that the proponent has omitted or deferred to negotiations with regulatory agencies. The terms and conditions related to these issues should be included in the NIRB project certificate to protect the environment.

As indicated earlier in this submission, the construction of the project may not commence and the water licence may not be issued until the IIBA is completed and the water compensation issues are resolved. KIA will work collaboratively with Tahera toward these ends.

In conclusion, KIA supports the Tahera project in principle. This support is subject to NIRB's imposition of appropriate environmental protection measures through its certificate, the proponent's satisfaction of those terms and conditions and the satisfactory completion of an IIBA and resolution of water compensation issues.

Appendix 1. Table of Issues Identified by KIA's Review of the Project

Tahera's Response to Rescan's (2003) Review of the Jericho Final EIS

Issue	Tahera's Response	Rescan's Comments
21	No air quality monitoring for PM2.5. This is a permitting issue.	Canada Wide Standards will come into force during Jericho's lifespan, hence it would be advantageous to have a prior PM2.5 database.
29	Inadequate permafrost characterisation. Conducted additional drilling and installed thermistors.	New descriptions are generally adequate but not for revised dam locations. Tahera did not drill in the vicinity of streams flowing from Long Lake, and on the north abutment of West Dam.
38	Potential of internal loading for water quality. New dilution modelling showed that solute concentrations will increase by <1%/year.	New modelling was a substantial improvement over old modelling, and the rate of internal loading appears reasonable for an 8 year-old facility, but monitoring will be necessary to confirm model predictions.
39	Characterisation of sewage and processed kimberlite. Information on waste water plant effluent was provided. Support for phosphorus-PK binding was provided by Graham's (2002) Ekati study.	Tahera has supplied appropriate information on the waste water plant. Graham's (2002) study supports the absorption of phosphorus by PK, but monitoring will be required to confirm the extrapolation of Ekati™ results to Jericho.
40	Potential toxic effects of altered water quality. Health Canada guidelines for drinking water will not be exceeded.	Tahera predicts minimal internal loading near the Carat Lake water inflall.
41	Potential effects of changes in ion concentration. Dilution modelling predicts minor changes in ion concentrations in water system.	Tahera predicts minimal internal loading near the Carat Lake water inflall.
42	Potential impacts of phosphorus. Support for phosphorus-PK binding was provided by Graham's (2002) Ekati study.	Tahera has built on Ekati™'s experience, as recommended.
43	Boundary of water quality impacts. Tahera commits to establishing a monitoring point on the Jericho River downstream of Jericho Lake.	Tahera has followed the recommendation for a monitoring point downstream of Jericho Lake.
50	Lack of dispersion statistics and fish size data. Low and moderate significance issues were not addressed in the Supplemental Information package, however, copies of all contractor reports were included. Tahera believes that the aquatic studies to date addressed all regulatory requirements.	The purpose of Rescan's issue was to encourage monitoring reports to follow conventional scientific formats when reporting fish tissue metal concentrations.
51	Implications of fish life history characteristics. Tahera did not address this issue.	The lack of discussion was a deliberate omission.

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52	Seasoning of the Stream C1 diversion.	Tahera did not directly address this issue, but indicated further discussion with DFO was required.	Tahera will wait until the permitting phase before negotiating habitat compensation with DFO.
53	Consequences to fish of increases in phosphorus.	Tahera will commit to aeration of Lake C3 and Carat Lake if oxygen levels drop below natural levels.	Tahera satisfied recommendation to consider aeration as mitigation measure for eutrophication and oxygen depletion of lakes in project area.
54	Ions, zooplankton community structure and fish diet.	Tahera did not address this specific issue, but it dealt with the broader issue of water quality in its responses to issues 38 to 41.	Tahera did not explicitly address the issue of ion concentrations on zooplankton community structure.
55	Effect of nitrate on fish egg and fry survival.	Tahera predicted the likely concentrations of nitrate in the Lake C3/ Carat Lake system, but stated there are no CCME guidelines for nitrate.	Tahera is not correct in regard to the CCME guideline - a new nitrate guideline was issued in May 2003. Tahera's modelling showed that the guideline will be exceeded by effluent from the PKCA.
58	Water quality sampling locations.	Tahera will commit to a second control site, perhaps in Cigar Lake. Tahera expects some adjustment of sampling sites during the permitting phase.	Tahera has committed to a second control site outside the Jericho Watershed.
66	Primary and secondary procuder sampling sites.	Tahera will commit to a second control site.	Tahera has committed to a second control site.
68	Analysed fish variables.	Tahera did not respond directly, but stated that fish sampling will be discussed with DFO and Environment Canada.	Tahera appears to be relying on DFO and Environment Canada to establish the fish monitoring variables.
69	Fish species analysed.	Tahera did not respond directly.	Tahera appears to be relying on DFO and Environment Canada to establish the fish monitoring variables.
70	Fish sampling sites.	Tahera did not respond directly.	Tahera appears to be relying on DFO and Environment Canada to establish the fish monitoring variables.
71	Fish sampling frequency and sampling size.	Tahera did not respond directly.	Tahera appears to be relying on DFO and Environment Canada to establish the fish monitoring variables.
72	Discontinuation of fish sampling.	Tahera did not respond directly.	Tahera appears to be relying on DFO and Environment Canada to establish the fish monitoring variables.
79	Additional control site.	Tahera will commit to a second control site, perhaps in Cigar Lake. Tahera expects some adjustment of sampling sites during the permitting phase.	Tahera has committed to a second control site outside the Jericho Watershed.

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81	Lack of information on vegetation communities.	Tahera will not sample vascular plants, but rely on sampling lichens.	Tahera responded to Rescan's recommendations.
84	Define significance of environmental effects on wildlife.	Tahera will commit to any practical monitoring effects that improves management of wildlife.	Tahera is committed to working co-operatively with other stakeholders on wildlife management issues.
85	Measuring the success of wildlife mitigative measures.	Tahera did not discuss this issue.	Tahera did not discuss this issue.
88	Wildlife effects of construction, operations and closure.	Tahera did not discuss this issue.	Tahera did not discuss this issue.
89	Lack of time depth to wildlife baseline data.	Tahera did not discuss this issue.	Tahera did not discuss this issue.
92	Details of post-project wildlife monitoring.	Tahera did not discuss this issue.	Tahera has committed itself to working co-operatively with stakeholders, but appears to be relying on regulators to propose specific monitoring programs.
94	Mitigative measures for caribou.	Tahera did not discuss this issue.	Tahera relies on measures already in the Final EIS.
95	Mitigation measures for large carnivores.	Tahera did not discuss this issue.	Tahera relies on measures already in the Final EIS.
96	Long-term liability of the open pit to wildlife.	Tahera did not discuss this issue.	Tahera did not discuss this issue.
97	Metal bioaccumulation in wildlife using the PKCA.	Tahera will not monitor small mammals and birds because they do not live long enough to accumulate metals in tissues. No discussion of metals in zooplankton. Tahera will use visual deflectors to deter wildlife approaching the PKCA.	Tahera responded to two of three issues related to tissue metal concentrations. No discussion of the need to metals analysis of zooplankton.
102	Low sample size for ARD determination.	Tahera believes that the consistency of country rock and the very low sulphide concentrations means that the number of samples collected to date is sufficient.	Tahera dealt adequately with the four sub-issues.
103	Need for mass balance modelling.	Tahera commissioned SRK to produce a site water balance and load concentration model, and it commissioned Greisman and Dunbar to model the dilution of mine effluents.	Tahera followed recommendations to improve mass balance modelling.
104	Inadequate water balance modelling.	Tahera commissioned SRK to produce a site water balance and load concentration model, and it commissioned Greisman and Dunbar to model the dilution of mine effluents.	Tahera followed recommendations to improve mass balance modelling.

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104	Inadequate water balance modelling.	The PKCA was re-designed to account for maximum storm design.	Tahera revised its strategy for dealing with ammonia in the PKCA.
105	Incomplete environmental management planning.	Discussed in greater detail by Tahera.	Tahera followed recommendations to improve planning. The only recommendation not followed was to discuss water conservation.
107	Appropriate dilution model for Lake C3.	New model included Carat Lake, used one tenth the inflows of the old modelling, and incorporated summer stratification.	Tahera followed recommendations to improve modelling.
108	Calibration and sensitivity analysis of dilution model.	New model included Carat Lake, used one tenth the inflows of the old modelling, and incorporated summer stratification.	Tahera followed recommendations to improve modelling, but did not conduct a sensitivity analysis.
109	Removal of nitrogen by spray irrigation.	Tahera addressed the issues brought up by the reviewer.	Rescan recommends a series of monitoring tasks: (1) soil and water samples must be collected from areas that had been most heavily irrigated in the prior 2 weeks; (2) the concentration of light metal ions (Ca, Mg, Na, and K) should be monitored ; (3) porosity and cation exchange capacity of soil samples should be determined ; and (4) the operation of the irrigation system should be based on weather conditions.
110	South-east, West, North and Settling Pond dams.	Tahera relocated the West Dam, it adopted the HDPE Lined Core Dam, it provided a modified dam design, and it conducted a thermal analysis of the frozen core dam.	Rescan supports the relocation of the West Dam. Rescan also supports the choice of an HDPE Lined Core Dam. However, Rescan is concerned that the cost and time constraints of building such as dam may prevent the West Dam and the Settling Pond dam from being built in one winter season. The location and backfill on top of the liner is not acceptable. The thermal analysis was of limited value.
111	Divider dyke.	Tahera eliminated the divider dyke in the PKCA.	Tahera may want to reconsider because the divider dyke allows progressive reclamation of the tailings surface.
112	Perimeter dykes.	Tahera revised the design by incorporating practically impermeable cores using either coarse PK or esker materials with bentonite.	An acceptable design.

(continued)

113	Tailings pond hydrology.	Tahera provided information regarding the west tailings cell and the settling pond. It also provided a tailings cover concept.	Tahera should provide a description of the likely geometry of the tailings surface at mine closure. Rescan strongly recommends that tailings should be configured to prevent collection of water behind the dam, thereby avoiding regular dam inspection.
115	Waste rock dump site 1.	Tahera provided additional geotechnical information.	The present information is adequate for the present design.
116	Storage capacity of the sediment control pond.	Tahera modified sediment pond water management by increasing pond size and installing pipelines to the PKCA.	The revised design is acceptable.
117	No adequate revegetation plans.	Tahera criticized the reclamation reviewer, but committed itself to working with stakeholders to improve management of vegetation. However, it did not provide the reclamation plans, as requested.	No adequate revegetation plans.
118	Inadequate baseline socio-economic data/analyses.	Tahera prepared a new socio-economic baseline review.	The new baseline socio-economic analysis followed Rescan's recommendations.
119	Incomplete socio-economic impacts assessment.	Tahera prepared a new socio-economic impact assessment.	The new socio-economic impact assessment followed Rescan's recommendations. No analysis of the diamond market was shown.
120	Incomplete socio-economic cumulative impact assessment.	Tahera repeated the same cumulative SEIA shown in the Final EIS.	Overall, Tahera responded to Rescan's recommendations.
121	Lack of recent community consultation.	No Tahera response.	This issue largely falls under the IIBA umbrella, hence it will not be discussed further in this review.
123	Inadequate heritage resource study.	A new heritage resources impact assessment was prepared.	The main issues have been adequately addressed in the revised HRIA. The only data gap involves cumulative effects. The regional approach used to identify all sites is commended, but some of the data are not accurate.

(completed)

Appendix 2. Executive Summary of KIA's Consultant Review of the Final EIS of the Jericho Project

This report reviewed the Supplemental Information on the Jericho Diamonds Project Final Environmental Impact Statement (EIS) that was provided by the Tahera Corporation in October 2003. The report evaluated Tahera's responses to 51 of the most significant issues identified in a previous review of the Final EIS conducted by Rescan Environmental Services Ltd. Overall, the Supplemental Information provided an effective response to the review. However, there were some outstanding issues concerning mine design and environmental mitigation and monitoring. At a number of locations in the Supplemental Information, Tahera stated that the details of the environmental monitoring plans will not be confirmed until after negotiations with regulatory agencies are complete. This is an important issue for the Kitikmeot Inuit Association (KIA) and Nunavut Tunngavik Inc. (NTI) because they have little direct influence on the outcome of negotiations, and because they cannot guarantee that regulatory agencies will place as strong a focus on conservation of fish and wildlife as they would like. The public hearings into the Final EIS and directives issued by Nunavut Impact Review Board (NIRB) are the KIA's and NTI's principal methods of exerting oversight.

Five issues were identified as significant outstanding aspects of the design of the Jericho mine:

- additional permafrost drilling should be done to define the existence of "stream taliks";
- boreholes should be located on the north abutment of West Dam to establish the fracturing of the bedrock and the depth of the active zone;
- the location of the liner for the re-designed West Dam should be re-considered in light of the experience of the EKATITM Diamond Mine (EKATI);
- reconsider the decision to remove the divider dyke of the Processed Kimberlite Containment Area (PKCA) because the dyke would aid in progressive reclamation; and
- the tailings in the PKCA should be configured to prevent collection of water behind the dam to increase long-term safety and to avoid regular dam inspections into perpetuity.

The following eleven environmental monitoring issues were identified as issues that NIRB should consider when preparing its list of directives:

- the PM_{2.5} fraction should be included as a variable in the air quality monitoring program because PM_{2.5} will eventually be included once Canada Wide Standards are adopted in 2010;
- regular monitoring of water quality throughout the water management system throughout the mine's operating life is essential to ensure that the rate of internal loading of any or all constituents is less than 1%/year, as predicted by the models developed in the Supplemental Information;
- water quality monitoring should ensure that the phosphorus that will enter the PKCA from treated sewage effluent will indeed be largely absorbed by processed kimberlite and will

not be exported in sufficient quantities to the receiving environment to initiate eutrophication;

- nitrate concentrations must also be regularly monitored to ensure that the new CCME nitrate guideline is not exceeded in receiving waters (*e.g.*, Lake C3 and Carat Lake);
- a water quality monitoring station should be placed on the Jericho River downstream of Jericho Lake to define the downstream extent of the mine's environmental influence;
- a second control site must be established outside the Jericho Watershed to avoid problems that may arise if the first control site is found to be unsuitable;
- Tahera should follow the Canadian Metal Mining Environmental Effects Monitoring Protocol as a guide when sampling fish and analysing fisheries data;
- Tahera should follow EKATI's example when sampling and assessing lichens for metal concentrations, particularly with regard to the number of sampling sites and the number of annual tissue samples;
- Tahera should work co-operatively with other stakeholders to increase the scope and scientific value of its wildlife monitoring programs. There was a general lack of specificity to the wildlife monitoring programs in the Final EIS and the Supplemental Information;
- Tahera should commit itself to a series of monitoring measures associated with spray irrigation; and
- additional archaeological investigation must be conducted by a qualified archaeologist holding a valid Nunavut Archaeologists Permit prior to the initiation of any construction activity.

In conclusion, it is imperative for the KIA and NTI to hold Tahera accountable for the various environmental commitments made throughout the Supplemental Information documents.