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December 15th, 2005

Ms. Stephanie Briscoe
Executive Director
Nunavut Impact Review Board
P.O. Box 2379
Cambridge Bay
Nunavut, X0B 0C0

By FAX and e-mail

Dear Ms. Briscoe:

RE: NIRB Key Issue and Commitment Deficiencies and Teleconference

Cumberland Resource Ltd. (Cumberland) is pleased to provide its supplementary submission in response to the Nunavut Impact Review Board's (NIRB) letter of November 25th 2005. Cumberland has addressed all of the deficiencies (both red and yellow cells) noted by NIRB in relation to the Key Issues, and the commitments made by Cumberland and listed in Appendix 1 to NIRB's pre-hearing decision of July 14th, 2005. Red and yellow response are located at the end of this letter and in the Golder attachment.

Cumberland would like to take this opportunity to set out, for the record, its views on several procedural matters related to this stage of the NIRB's part 5 Meadowbank process.

We note that a number of the letters received by NIRB addressing questions related to the revised hearing date and the need for supplementary information, as set out in the table attached to the Board's November 25th letter, have referred to this stage of the process as a "conformity review". In our view, such a characterization is potentially confusing. NIRB has already ruled positively on the conformity of Cumberland's Draft Environmental Impact Statement (DEIS). The Final EIS included all the material that was in the DEIS and more. NIRB has not amended its Meadowbank Guidelines. The FEIS must therefore be in conformity with the NIRB Guidelines.

The only new information requirements set out by the Board after its conformity decision were the "Key Issues" found in section 6 of the pre-hearing decision. Cumberland has submitted the information requested by NIRB on these key issues. Appendix 1 included

a list of commitments made by Cumberland in response to discussions in the technical meeting that preceded the pre-hearing conference. These commitments were voluntary. Cumberland offered to do this extra work to improve on the contents of the DEIS and to assist reviewers to understand the technical analysis which would be included in the FEIS. We hoped that these commitments would reduce the time and effort necessary for all parties to prepare for a final hearing.

It appears, however, that another "conformity" phase has been introduced into the NIRB process. Cumberland responded to every commitment made in Appendix 1 in the FEIS and today we have submitted the additional evidence requested November 25th in a supplementary report. We do not think that a difference of views about the sufficiency of information submitted in response to what are essentially voluntary commitments should further delay progress toward the final hearing.

Cumberland notes that in NIRB's proposed agenda for the December 15th teleconference that the second bullet in item 4 makes reference to a "NIRB FEIS Conformity Determination". We request an explanation of this item in light of our comments above. It is our understanding that we are already in conformity with NIRB requirements.

We note as well that agenda item 4 refers to the possibility of Information Requests (IRs). Cumberland is more than willing to explain its work in order to assist reviewers during their review of the FEIS. The parties should, however, be aware that Cumberland has included in the FEIS all the information in its possession which is relevant to the analysis of the Meadowbank project's impacts.

Cumberland does not consider it to be necessary, to conduct additional field work or new research to support the conclusions set out in the FEIS. Our view that there will be no significant adverse residual impacts arising from the Meadowbank project is exhaustively documented in the FEIS. We request that NIRB ensure that IRs are limited to questions necessary to assist reviewers to understand the FEIS and the conclusions about the impacts of the Meadowbank project set out in the FEIS. If reviewers have different views about the impacts of the project, they may file evidence to the contrary with NIRB.

We understand that the onus is on the applicant to convince NIRB that there will be no significant residual impacts on the environment resulting from the Meadowbank project. Cumberland believes, however, that it has provided sufficient evidence to enable the Board to draw such a conclusion. We look forward to the opportunity to present our work to the Board in the final hearing.

Yours truly,

Craig Goodings
Cumberland Resources Ltd.

RED NO RESPONSES

6.1) Wildlife

c) More analysis and discussion regarding the potential for wildlife including birds and small animals to be affected by contaminants, including acid rock drainage and wind blown contaminants.

NIRB Comment:

This is an overview of the methodology for a screening level risk assessment and does not provide a discussion on the potential for adverse effects on birds and other wildlife from wind blown contaminants and those resulting from ARD.

Cumberland's Response:

The potential for adverse effects on birds and other wildlife from wind blown contaminants and those resulting from ARD has been described in considerable detail in the Terrestrial Ecosystem Impact Assessment (TEIA). Although potential impacts exist, it is unlikely that contaminant levels will result in significant health risks to wildlife.

Please note that the impact matrices at the end of the TEIA provide a comprehensive assessment and analysis of potential impacts, and that the Terrestrial Ecosystem Management Plan provides detailed mitigation plans for reducing any potential impacts of these contaminants. The Screening Level Risk Assessment will test our assumptions/hypotheses and provide threshold levels of contaminants in soil and vegetation at which adverse effects may occur.

For the convenience of the reviewers, we have provided the locations where these impacts have been addressed in the TEIA.

Section 3.2.1, Page 3-2, paragraph 4
Section 3.2.3, Page 3-4, paragraph 3
Section 3.2.4, Page 3-5, paragraph 1
Section 4.2.1, Page 4-2, paragraph 2
Section 4.2.3, Page 4-7, paragraphs 3 and 6
Section 4.2.4, Page 4-8, paragraph 2
Section 6.2.3, Page 6-5, paragraph 3, and Page 6-6, paragraph 1
Section 6.2.4, Page 6-6, paragraph 2
Section 7.2.3, Page 7-7, paragraphs 4 and 5
Section 7.2.4, Page 7-8, paragraph 1
Section 7.2.5, Page 7-8, paragraph 5
Section 8.2.3, Page 8-4, paragraphs 4 and 5
Section 8.2.4, Page 8-5, paragraphs 3, 4 and 5
Section 8.2.5, Page 8-6, paragraph 3
Section 8.4, Page 8-7, paragraph 2
Section 9.2.1, Page 9-2, paragraph 3
Section 9.2.3, Page 9-5, paragraph 4
Section 9.2.4, Page 9-6, paragraph 2
Section 9.2.5, Page 9-6, paragraph 2

6.6) All-Weather Road

b) Exploration of regulatory aspects of the road, such as traffic control, including consultation with the Hamlet of Baker Lake, the Federal Government (including INAC if appropriate), and the GN to determine the potential roles all levels of government will play in the regulation of the road.

NIRB Comment:

Conduct and provide results of consultation with Hamlet, GN, Government of Canada and KIA on the issue of potential roles all levels of government will play in the regulation of the road

Cumberland's Response:

Cumberland included information in response to this Key Issue on the all weather access road in its material on Public Involvement; Traditional Knowledge; Access & Air Traffic Management; Final Environmental Impact Statement and at pages 57 to 62 of Appendix A.

NIRB's November 25th comments were as follow:

NIRB Comment: Issue 6.6(b)

> "Provide results of consultation with Hamlet, GN, Government of Canada and KIA on the issue of potential roles all levels of government will play in the regulation of the road."

Cumberland contacted all of the parties referred to in NIRB's comment (above) during the preparation of the FEIS and the road was a part of these discussions.

Consultation with the Kivalliq Inuit Association (KIA) in respect of the road, its regulation and future has taken place in the context of Inuit Impact and Benefit Agreement (IIBA) negotiations which are subject to a confidentiality agreement. Cumberland can advise NIRB that the road has been discussed and that KIA has not to date indicated any interest in taking over the road at project closure. KIA and Cumberland have not yet discussed details of the surface tenure required for the construction of the road. Cumberland is not aware of any intention by KIA to play a direct role in the regulation of traffic on the road. KIA will regulate Cumberland's use of Inuit Owned Land (IOL) as indicated in our previous submission. The details of leases or land tenure arrangements for the portion of the road right of way on IOL will be worked out after the completion of the NIRB review as part of the regulatory process.

The Hamlet of Baker Lake has been consulted in respect of Cumberland plans in general, including the eventual requirement for facilities within the hamlet's boundaries one example of which would include the road. No land tenure arrangements for the road have been specifically discussed. The hamlet's authority to manage road traffic within its

boundaries was discussed in out previous submission. The hamlet, of course may enact bylaws to deal with the road but Cumberland has no indication to date that the Hamlet of Baker Lake intends to play such a regulatory role.

Cumberland has met with and discussed the all weather road with political representative of the Government of Nunavut (GN) but these discussions have been primarily addressed to the need and role for the road in the overall development of the project and regional economic development. GN has to date not indicated any interest in taking over the road. Cumberland provided its analysis of the legal framework and the possibility of a GN role in the regulation of the road in its previous submission.

Cumberland has had limited discussion of the land tenure requirements for Crown land with staff of the Department of Indian Affairs and Northern Development (DIAND). Our understanding is that DIAND will play a role in regulating the use of the road through land tenure instruments for Crown land which will be negotiated once the NIRB review is complete. We are not aware at this time of any interest at DIAND in direct regulation of traffic nor are we aware of any interest at DIAND in taking over the operation of the road after the Meadowbank project is completed. Cumberland also addressed these matters in its previous submission.

In order to be more responsive to NIRB's concerns about this matter, Cumberland has corresponded with DIAND, GN, KIA and the Hamlet of Baker Lake inquiring specifically about these organizations' interests in the regulation of the road and in future involvement with the road, after the Meadowbank project is completed (see letter below). We will file any responses received with NIRB and should any of these organizations express an interest in direct regulation of the road, we will follow up and report on that follow up to NIRB.

In conclusion, Cumberland has provided NIRB all the information in its possession to date in respect of Key Issue 6.6(b). We have made additional contact with the parties identified by NIRB inquiring about their interest in the regulation of the road. We will update the evidence filed with the Board before hearings begin and we will follow up any expression of interest received from any of DIAND, GN, KIA and the hamlet. We will keep NIRB informed and ensure that the record is as complete as possible in response to Key Issue 6.6(b).

c) Long term options for the road, including the exploration of options to keep the road open after mine closure and maintenance plans for the road in the event of the decision is made to keep the road open

NIRB Comment:

The information provided in the FEIS to address this directive is insufficient, particularly given that this directive was emphasized by the Minister in his letter to NIRB dated September 7, 2005. Evidence has not been provided to show that options to keep the road open after mine closure have been explored with input from the agencies responsible for managing or owning the land across which the road would be constructed. The issues surrounding long term options to keep the road

open after mine closure such as maintenance, liability, public access, and transfer of security deposits have also not been addressed.

Cumberland Response:

Cumberland included information in response to this Key Issue on the all weather access road in its materials on Access & Air Traffic Management, the Final Environmental Impact Statement and at pages 57 to 62 of Appendix A. A commitment to reconsider future options of the road in year 6 of the project is included in the Socio-Economic Impact Management Plan.

NIRB's November 25th comments were as follow:

NIRB Comment: Issue 6.6 (c)

> "The information provided in the FEIS to address this directive is insufficient, particularly given that this directive was emphasized by the Minister in his letter to NIRB dated September 7, 2005. Evidence has not been provided to show that options to keep the road open after mine closure have been explored with input from the agencies responsible for managing or owning the land across which the road would be constructed. ***The issues surrounding long term options to keep the road open after mine closure such as maintenance, liability, public access, and transfer of security deposits have also not been addressed***." (emphasis added)

Cumberland has several concerns with respect to this Key Issue and to the scope of the response provided by Cumberland in the FEIS. Cumberland wishes to clarify its position on future options for the road for NIRB's record.

1. Cumberland has not proposed a project which includes any future options for the all weather access road. Continuing use of the road after Meadowbank closure was a matter raised by third parties in the Baker Lake pre-hearing meetings. Once Cumberland has completed mining, abandonment and decommissioning of the Meadowbank project it will decommission the road, unless some other entity accepts a transfer of land tenure and any associated liability.
2. We point out that there is overlap between the NIRB comments on Key Issue 6.6(b) and the second sentence of 6.6(c). Both instruct additional consultation and reporting to NIRB. Cumberland has already responded to that instruction in its response to Key Issue 6.6(b). Cumberland has both taken action to secure more information and made a commitment to report further to NIRB when such information is available.
3. The comment made by NIRB staff on November 25th in respect of long term options for the road does not appear to be consistent with either the NIRB pre-hearing decision or the letter from Minister Scott. [See the last sentence in the NIRB comment quoted above.]

   More specifically, the Minister said:

> "Pursuant to section 12.5.1 of the Nunavut Land Claims Agreement, I would like to identify a particular issue for the Board to consider. An all-weather toad of this scale would be the first of its kind in Nunavut. Given the fact that the road is connected to the Hamlet of Baker Lake, ***the environmental and socio-economic effects of its construction, use and eventual abandonment be fully considered as well as future options for the road***." (emphasis added)[1]

NIRB's pre-hearing decision in respect of item 6.6(c) actually says:

> "Long term options for the road, including the exploration of options to keep the road open after mine closure and maintenance plans for the road in the event the decision is made to keep the road open."[2]

It appears to Cumberland that the comments in the "conformity letter" of November 25th go beyond what either the Board or the Minister asked for. The detail requested in the November 25th letter is considerably greater than was requested either by the Minister or the Board.

4. Cumberland's FEIS responded satisfactorily to both the Minister's and NIRB directions on matters related to the road, except future options. It fully addressed the environmental and socio-economic effects of the road's construction, its use and eventual abandonment.
5. Cumberland's FEIS also addressed future options for the road. But we have been instructed to file additional evidence in respect of future options of the road.
6. At this time, based on the discussions held with DIAND, GN, KIA and the Hamlet of Baker Lake, there are no future options of the road. No party has indicated any interest in taking over the road. As promised, Cumberland is checking with these parties again and we have corresponded to them to that end.
7. In this proceeding, the onus is on Cumberland to convince NIRB that the residual environmental and socio-economic impacts of its project are not significant. Keeping the road open after mine closure and decommissioning is not part of Cumberland's project proposal.
8. "Future options for the road" is a third party issue. Cumberland has been responsive to both the Minister and NIRB. Demanding significant new efforts from Cumberland to address this issue raised both fairness and jurisdictional questions.
9. Any third party's proposal to operate the road after Cumberland is finished with it will be subject to environmental and regulatory controls, including review by the Nunavut Planning Commission at that time.
10. Cumberland has committed to a review of options for the road at year 6 of the project through its Socio-Economic Impact Management Plan. If no one steps forward to indicate their intention to take over the road before the NIRB hearings, there will be no new evidence for Cumberland to file on this issue.

At the moment, there is no new evidence to file on this issue with NIRB. Cumberland will report on the results of its on-going consultation efforts as they become available.

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[1] From page to of letter dated September 7th, 2005 from Minster Andy Scott to Mr. Albe rt Ehaloak, Acting Chair of NIRB.

[2] NIRB pre-hearing decision page 34.

Copy of letter to potential road proponents:

To: INAC
Gn
Kiv IA
Hamlet of Baker Lake

By FAX and e-mail

Dear Sir:

RE: Future Options for Meadowbank Gold Project Access Road

As you are aware, Cumberland Resources Ltd. (Cumberland) has submitted a Final Environmental Impact Statement (FEIS) for its proposed Meadowbank project to the Nunavut Impact Review Board (NIRB). This project includes a private all weather access road which will be built and run by Cumberland for the life of the mine. Cumberland's plan does not include any role in operation or management of this road after abandonment and decommissioning of the Meadowbank site. Further, we expect that land owners for the road right of way and regulators will insist that Cumberland decommission the road as part of its cleanup upon mine closure unless some other party or parties decide to take over and operate the road.

The Minister of Indian and Northern Affairs Canada and NIRB have asked Cumberland to consider long term options for the road. Cumberland has advised NIRB that it has no intention of operating the road once the Meadowbank project is closed. On November 25, 2005, NIRB asked Cumberland to provide more information on the potential roles that all levels of government will play in the operation of the road and especially in terms of future options for the road.

Cumberland seeks your assistance in answering several questions about operation of the road and its future so that we can respond more fully to NIRB.

1. Given that Cumberland will construct and operate the road as a private facility, do you see any role for your organization in traffic control, public safety or regulation of the road?

2. After Cumberland completes its abandonment and decommissioning of the Meadowbank site do you envision any role for your organization in operating and managing the road?

3. If you see a role for your organization in operating the road after the Meadowbank project is finished are you willing to accept the operational costs and liability which will go along with that role?

Your written response to these questions would be of great assistance to Cumberland in completing its submissions to NIRB on the all weather access road. I would appreciate it if you could forward your response to our questions at your earliest convenience. Thank you in advance for your assistance.

Yours truly,

Craig Goodings
Manager of Environmental and Regulatory Affairs

cc. Stephanie Briscoe
Executive Director, NIRB

6.8) Socio-economics

a) Comparison of Arctic Bay/ Nanisivik mine experience, and perhaps Eastmain, to assess the potential social and economics effects in the satellite community (Baker Lake) affected by the mine. This includes the effect of closure of the mine and road on the 737 airstrip at the Project site.

NIRB Comment:

Provide a comparison, at a minimum, of Baker Lake to the Nanisivik mine experience, using available socioeconomic studies, and professional judgment. Discuss the effect of closure of the mine and road on the 737 airstrip.

Cumberland's Response:

The airstrip at Meadowbank will be closed when the mine closes.

A review of internet resources at the time of the preparation of the FEIS indicated very little publicly accessible information on the Nanisivik experience, beyond the challenges faced in Arctic Bay as a result of the closure of Nanisivik mine. Subsequently NIRB indicated to Cumberland that a socio-economic impact study had been completed in 2002 for the Government of Nunavut (Brubacher and Associates, August 2002, The Nanisivik Legacy in Arctic Bay, Ottawa, 105 pp.). Cumberland has reviewed this report, kindly forwarded by Mr. Brubacher at the request if INAC, and notes the following with respect to comparing Nanisivik to the Meadowbank project as presently conceived:

1. The study concludes that the Nanisivik mine had positive direct, indirect and induced economic benefits, that the primary negative impacts (aside from closure) were related to the abuse of alcohol and associated behaviours, and

that other potential social and economic effects (such as effects on traditional activities, families, intergenerational relations, capacity building, etc.) were mixed, with different individuals reporting different responses to the mine. With regard to the last conclusion however, overall there appeared to be no net measurable effects that could be disaggregated in cause from other ongoing forces of change and that qualitative information obtained during interviews with Arctic Bay was more positive and negative.

2. The above conclusions, based on a review of what has actually happened in Arctic Bay, are consistent with other reviews of resource extraction projects in the north, such as those of Sly et al and the Government of the Northwest Territories, as referenced in the FEIS. They are also broadly consistent with professional experience of large resource extraction projects world wide, although not always consistent in detail given the enormous range of environments, cultures and projects.

3. The above conclusions are also completely consistent with those in the Meadowbank FEIS with regard to potential project effects and proposed mitigation. The positive economic effects are addressed in the FEIS in sections 3.2.1 of the Socioeconomic and Archaeology Impact Assessment and 2.2.1 and 2.2.2 of the Socioeconomic Impact Management Plan; the negative effects of closure, considered to be of high consequence, are addressed in sections 3.2.1.6 and 2.2.7 of the two documents respectively; the potential for negative effects on alcohol consumption is addressed in sections 3.2.3.1 and 2.2.4 and 2.2.5 of the two documents respectively; the potential for net negative effects on individuals is also addressed in sections 3.2.3.1, 2.2.4 and 2.2.5; the challenges of predicting many net socio-economic effects at a community level and the expectation that these would overall be positive largely as a consequence of income effects are addressed in sections 2.3 and 3.2.3.1 of the Socioeconomic and Archaeology Impact Assessment.

4. On the subject of closure, the study notes that negative effects include loss of income to individuals and businesses, loss of services and “uncertainty” with respect to the disposition of physical plant representing a heavy investment of the Government of Nunavut (equivalent to $45 million in current 2002 dollars). Loss of income was considered significant, however the study notes that comparatively few people and businesses depended on the project for most or all of their livelihoods. By closure, only 9% of staff were northern – most, but not all of these, were from Arctic Bay. As Cumberland expects that a much higher percentage of staff will be from Baker Lake, and that local business will participate in the project to a greater extent, effects on income of closure are likely to be of higher consequence unless alternative economic activity in Nunavut and Baker Lake develops over the life cycle of the Meadowbank project.

5. Loss of services, particularly increased sea lifts using mine boats and jet service but also including mine site recreational facilities, were perhaps more significant to the population of Arctic Bay as a whole, but as Cumberland will not supplement local transport or other infrastructure, lessons here do not really apply. “Uncertainty” with respect to disposition of physical plant could be considered to apply. The circumstances are however quite different between the two mines. Cumberland is obligated by the terms of its permits to remove all

mine associated infrastructure, including the access road and the mine air strip. There is presently no significant economic use of the mine site area and there will be no immediate investment on the part of the Government of Nunavut with a view to short, medium or long term economic use of mine infrastructure. Uncertainty is only introduced insofar as the people of Baker Lake may intend and be able to develop economic rationales, and implementation plans, for economic use of mine infrastructure that would warrant public investment before or at closure. Cumberland remains open to discussing options for handing over mine associated infrastructure at the time of closure.

6. With regard to abuse of alcohol and consequent unfortunate behaviours, the important differences between Nanisivik and Meadowbank are: Cumberland's rotational as opposed to resident workforce at the mine site; Cumberland's policy that the mine site, including accommodation facilities, be drug and alcohol free; and Nanisivik's proximity to Arctic Bay and the access residents of Arctic Bay had to the mine site and its "lax" alcohol policy. Whereas the FEIS acknowledges that some individuals may choose to spend increased disposable income on alcohol, and that the access road may result in challenges in managing mine site workforces, the people of Arctic Bay, the people of Baker Lake and reviews of northern experience in this regard to not conclude that overall levels of alcohol abuse increase at a community level as a result of mine employment.

7. The study notes seven recommendations to the Government of Nunavut, addressed to managing the effects of closure on the community. These recommendations do not include reference to initiatives recommended to be undertaken by project proponents. The study also notes seven lessons learned, and consequent recommendations to the Government of Nunavut, some of which could imply participation of a project proponent, as follows:

   - Maintain a focus on community development goals
   - Ensure corporate memory is documented and available to the community
   - Monitor social and economic conditions related to these goals
   - Maintain open channels for community between the mine and the community and workers
   - Manage alcohol according to community wishes
   - Address "future use" options and opportunities during the design phase
   - Implement a pre-mining employment orientation course using Inuit teaching methods

   With regard to Cumberland participation in the implementation of the above recommendations to the Government of Nunavut, Cumberland has in the FEIS and the IIBA negotiations undertaken to:

   - Implement a consultation process to maintain open communication with the people and Government of Baker Lake on the relationship between the community and the mine
   - Report regularly on undertakings in the FEIS and the IIBA to both communities and their governments
   - Participate in socio-economic monitoring both under the IIBA and as agreed with Baker Lake, the Government of Nunavut and other interested parties

- Support a community relations officer and project office in Baker Lake and a KIA coordinator
- Implement and enforce policies on drugs, alcohol, harassment and conditions of work that accommodate Inuit culture and encourage communication
- Establish work site training programs and work with Nunavut educational institutions on a range of educational initiatives

18. Provide statement in FEIS on monitoring Tailings freezeback

NIRB Comment:

Thermal modeling results of the Portage Tailings Facility predict times to freeze to depths into the talik. Discuss how these tailings freezeback predictions will be monitored.

Cumberland's Response:

Please see attached Golder document.

18a) Rationale to be provided for monitoring program.

NIRB Comment:

Provide a rationale for the above mentioned monitoring program.

Cumberland's Response:

Please see attached Golder document.

28a) CRL will clarify the source of till for the construction of the East dike, the construction stage at which Ultramafic (UM) rock will be placed on the dikes, whether the placement of UM rock can be used to isolate the work area, and the level to which the UM will be placed in the context of the range of water levels in 2nd and 3rd Portage Lakes

NIRB Comment:

The reports and sections indicated in the commitments table do not clarify the construction stage at which UM rock will be placed on the dikes, whether the placement of UM rock can be used to isolate the work area, and the level to which the UM will be placed in the context of the range of water levels in 2nd and 3rd Portage Lakes.

Cumberland's Response:

Please see attached Golder document.

28b) Option to deepen and widen the connecting channel between 2nd to 3rd Portage Lake needs to further consider impacts to fish populations, at what time the channel will be altered (in the context of dewatering pit and tailings areas), whether this will achieve the desired result, and whether the upstream invert of the connecting channel will reduce water levels in 3rd Portage Lake as a result of construction or potential failure during operation and closure. The alternate options to discharge excess water needs to be considered

NIRB Comment:

The reports and sections indicated in the commitments table do not address whether the upstream invert of the connecting channel will reduce water levels on 3rd Portage Lake as a result of construction or potential failure during operation and closure. Alternate options to discharge excess water are also not addressed.

Cumberland's Response:

Section 6.2.2.3 of the Aquatic EIA states "Operation of the Portage and Goose pits will require that all water discharged from Third Portage to Second Portage Lake be directed through the remaining two smaller channels east of the East and Goose Island dikes. To accommodate the increased flow, the easternmost channel will be expanded to handle the additional flow, without compromising water levels in Third Portage Lake. This activity is also intended to facilitate or increase the potential for movement by fish between the lakes." Results of the AMEC (2005) report Mine Pit Dewatering Analysis of Results is largely predicated on the fact that the westernmost channel has been modified to accommodate additional flow, without altering the natural invert elevation of the channel outlet.

We agree with NIRB that it is absolutely critical that the upstream invert elevation of the connecting channel not be altered so that water level in Third Portage Lake is maintained. Note that there is a great deal of redundancy in discharge capacity of the connecting channels (see Aquatic EIA Section 6.1.2.1) between Third and Second Portage lakes. Therefore, relatively small changes to width/depth of the westernmost channel are required to pass water between the lakes, even during wet years.

The only other option for directing dewatering flow from Second Portage Lake would be over the East Dike, directly into Second Portage Lake. This option was not considered in detail because of logistic and environmental concerns. Dewatering pipes would be very long and must cross within the pit area being dewatered (between the Tailings Dike and the East Dike) and would interfere with removal of bottom sediments and construction of the Tailings Dike.

After construction of the East Dike, the remaining water volume and area of Second Portage Lake is relatively very small. Discharging 12.2 Mm^3 of water into the small residual basin would cause an unacceptably large increase in water level in Second Portage Lake. On the other hand, discharging to Third Portage Lake would increase

water level by only 4 cm above normal, even during a 100-year precipitation event (AMEC, 2005).

28c) The impact of reduced flows in downstream channels will address the continued ability of fish to access upstream habitat during the period of refilling the pits, particularly during spring freshet

NIRB Comment:

The Baseline Aquatic Ecosystem report section 7.9 concludes that it is highly unlikely that there are any anadromous char in this system above St. Clair Falls. The Aquatic Ecosystem Fish Habitat Impact Assessment report section 6.1.1.6 provides an impact assessment during construction, not the period of refilling the pits. These reports and sections indicated in the commitments table do not address the directive.

Cumberland's Response:

We would like to reiterate that there are no anadromous char or spring spawning fish (e.g., Arctic grayling) for which there is a biological imperative requiring fish to move between any of the project lakes. It has been demonstrated that movement by fish between all lakes is small and random and unrelated to spawning, foraging or overwintering (See BAEAR, Section 7.10.10).

For this reason, we did not specifically address the issue of access by fish between lakes during flooding of pits. Pits will be filled from water drawn from under the ice over a period of several years. Although less than 1% of the volume of Third Portage Lake will be withdrawn in any year, this will reduce freshet water flow between Third and Second Portage lakes. Discharge between Wally and Drilltrail lakes will be similarly reduced. Notwithstanding the fact that few fish move between any of the lakes, we expect that there will still be sufficient discharge volume and depth of flow between the lakes to permit fish passage during freshet.

32a) Provide details of different rock lithologies (mineralogy, geochemistry, Acid Rock Drainage (ARD) and Metal Leaching (ML) potentials). Detailed sulphide and carbonate mineralogy, including heterogeneity in UM rocks to assess impact of capping Potentially Acid Generating (PAG) and ML rocks

NIRB Comment:

The report and section indicated in the commitments table do not provide detailed sulphide and carbonate mineralogy or heterogeneity in UM rocks

Cumberland's Response:

Please see attached Golder document.

53) Provide more detail on adaptive management and monitoring in relation to Vault waste rock pile

NIRB Comment:

Provide details of an adaptive management plan should water quality monitoring of the waste rock drainage not confirm predictions.

Cumberland's Response:

Please see attached Golder document.

54) Include information / sensitivity analysis regarding how extreme events and above normal lake levels could impact the GoldSim water balance graphs, to ensure that the design and impact assessment takes extreme events into consideration

NIRB Comment:

The Mine Waste and Water Management report section 10.2.2 provides water management infrastructure design criteria for extreme events but does not explain how extreme events were incorporated into the GoldSim water balance model or how extreme events impact the water balance assessment.

Cumberland's Response:

Please see attached Golder document.

67) Assess impact of quarry and borrow sites on wildlife and terrestrial VECs

NIRB Comment:

FEIS Appendix F provides the road impact matrices (including borrow pit and quarries) for all project VECs, including wildlife and terrestrial VECs, that were submitted during the DEIS Conformity Review. Impact matrices are a useful FEIS summary tool, but cannot be relied upon for the review of an FEIS which requires detailed descriptions of the impacts and explanations of their assessment. Information addressing this directive should be contained within the Terrestrial Ecosystem Impact Assessment document, however this document lacks detail particularly for impacts to VECs from road and quarrying activities.

Cumberland's Response:

The Terrestrial Ecosystem Impact Assessment has considerable information on the impacts of the proposed all weather access road on wildlife VECs. Please refer to the following sections:

Section 3.2.1, Page 3-2, paragraph 4
Section 3.2.2, Page 3-4, paragraph 2
Section 3.2.3, Page 3-4, paragraphs 3 and 4
Section 3.2.5, Page 3-5, paragraph 2
Section 3.4, Page 3-6, entire section
Section 4.2.1, Page 4-2, paragraph 2
Section 4.2.2.2, Pages 4-5 and 4-6, entire section and tables
Section 4.2.3, Page 4-7, paragraph 6
Section 5.2.2.2, Pages 5-5 and 5-6, entire section and tables
Section 5.2.3, Page 5-8, paragraph 1
Section 5.2.5, Page 5-9, paragraph 2
Section 6.2.1, Page 6-2, paragraph 1
Section 6.2.2.2, Pages 6-4 and 6-5, entire section and tables
Section 6.2.3, Page 6-5, paragraph 3, and Page 6-6, paragraph 1
Section 7.2.2.2, Page 7-5, entire section and tables
Section 7.2.3, Page 7-7, paragraph 5
Section 7.2.5, Page 7-8, paragraph 5
Section 8.2.2.2, Pages 8-3 and 8-4, entire section and tables
Section 8.2.3, Page 8-5, paragraph 1
Section 8.2.4, Page 8-5, paragraph 5
Section 9.2.2.2, Pages 9-3 and 9-4, entire section and tables
Section 9.2.3, Page 9-5, paragraph 4
Section 9.2.4, Page 9-6, paragraph 2
Section 9.2.5, Page 9-6, paragraph 2

As noted by NIRB, the general impacts of quarrying have previously been addressed within submitted impact matrices. The baseline report "Road Alignment Quarry Site Geochemistry" provides geochemistry information on 18 potential quarry sites along the proposed all weather access road. In almost all cases, these sites are in close proximity (i.e., on or immediately adjacent) to the proposed road whose direct and indirect impacts have been thoroughly discussed in the TEIA (see response above). In addition, the rocky nature of the proposed quarry sites (i.e., exposed, primarily granitic rock – see Table 2.1, 'Road alignment Quarry Site Geochemistry') are of generally low or moderate suitability for most Wildlife VECs (see Table 2.4, TEIA), and no ecologically significant or environmentally sensitive areas (i.e., raptor nest sites, breeding bird colonies etc.) were observed along the alignment during the 2005 field reconnaissance.

78) Provide literature review and discussion related to water column oxygen concentration during winter and indicate how late winter sampling will be conducted in 2006

NIRB Comment:

Provide indication of intention for and how late winter sampling will be conducted for 2006

Cumberland's Response:

No plan for winter water sampling was proposed because this is not a data gap. Late winter sampling was conducted at numerous locations from each project lake in May 2003. All profiles showed very typical temperature / oxygen profiles for oligotrophic Arctic lakes. Oxygen concentration was high throughout the water column. All other lakes we examined from the literature including large lakes such as Lac de Gras, Baker Lake, Lac du Sauvage, and smaller lakes, Koala, Kavisilik (564 ha), Squiggly (638 ha), Caribou (341 ha), Judge Sissons (9,550 ha), Skinny (197 ha), Scotch (195 ha), Pointer (374 ha), and Jaeger Lake have very similar limnological conditions (e.g., temperature/oxygen profiles) to project lakes (see BAEAR Section 5.1.3) We do not expect that conditions have changed. Because this is not a data gap, we do not feel that it is scientifically justifiable to gather these data, considering the logistic challenges and safety issues of winter sampling.

79) Provide further detail on water treatment technologies.

NIRB Comment:

Provide clarification for what is meant by "separate dedicated treatment for metals in a water treatment system". Specify proposed technology(s) under consideration.

Cumberland's Response:

The treatment system for metals removal after closure would consist of a ferric co-precipitation high density sludge system (HDS) followed by final filtration. The ferric co-precipitation system would be provided by utilizing reagent make-up, agitated tanks, pumps and thickeners available in the mill after shut-down. Polishing filtration would require installation of a separate package that would be installed prior to shut-down. The HDS system would utilize ferric sulfate, lime and flocculent in a recycle sludge system. This represents conventional technology for producing effluent that meets low metal discharge limits. Final filtration would ensure that any particulate metal carry-over from the HDS system is consistently removed to meet to low environmental limits.

93) Workforce requirements relative to regional human resource inventory will be incorporated into assessment of employment effects.

NIRB Comment:

Provide all background information related to human resources inventory work that was incorporated into the employment effects assessment, including any non-confidential results from the joint effort between Cumberland and the KIA.

Cumberland's Response:

The proposed human resource inventory is still currently being discussed as part of the IIBA negotiations, with detail not yet finally agreed. It is intended to be a joint initiative of the KIA and Cumberland, but work has not yet been initiated pending final IIBA agreement.

As noted in the FEIS, section 3.2.1 of the Socioeconomic and Archaeology Impact Assessment, the assessment of employment effects at the community level is based not on a Kivallliq region human resource inventory. Rather it is based on the consideration that only in Baker Lake will enough people be employed to result in the critical mass necessary to see both positive and potentially negative effects at the individual level spill over as community level effects. Subsequently, IIBA negotiations have raised the possibility that Chesterfield Inlet may be accorded second priority for employment after Baker Lake. This has been in response to a specific request by local government in Chesterfield, which also has advised that they would be pleased to see even qualified people join Cumberland, as this would liberate jobs for others who could then be trained, for a net increase in employment. However, given the demand for employment in Baker Lake relative to the skill and experience requirements of the project, the conclusion is that there is small potential for community level effects in Chesterfield, or other Kivalliq region communities.

As noted in the FEIS, Cumberland intends to agree with the KIA to make public those details of the IIBA that are not considered confidential once the IIBA is finally agreed. Final agreement on the IIBA is foreseen before April 2006. It is expected that information on the details of the human resource inventory, progress in its implementation and use to which its results may be put in recruitment by the project over the mine life cycle will be made public as and when available.

95) The Nanisivik experience will be reviewed and referenced EIS location Socioeconomic & Archaeology Impact Assessment, Section 2.3

NIRB Comment:

Provide a comparison, at a minimum, of Baker Lake to the Nanisivik mine experience using available socioeconomic studies and professional judgment.

Cumberland's Response:

See answer to question 6.8 a

105) Indicate commitment to performing at least 2 days of sound level monitoring per year.

NIRB Comment:

FEIS commits to two - 24 hour measurements during the first year of

development and every second year thereafter. Discuss why the monitoring commitment has been reduced.

Cumberland's Response:

In our DEIS and FEIS we proposed that:

The ambient noise monitoring program during both, the construction and operation stages should include one full day (day and night) measurements during the first year of development and every second thereafter to determine noise parameters such as the equivalent continuous noise level (Leq) in decibels (dBA), the A-weighted sound pressure level that is exceeded for 50% and 90% of the time over which a given sound is measured (LA50 and LA90) and frequency noise analysis.

Therefore, the monitoring commitment has not been reduced. The rationale for every second year measurement is that during operation of the project the noise sources will stay the same as no switching to different operation pattern is anticipated. However, if new significant noise sources are added than unscheduled noise monitoring will be undertaken. Also, if noise levels exceed relevant objectives, noise mitigation measures will be implemented and confirmation of noise levels will be needed.

Yellow Yes Reponses

6.1) Wildlife

a) Updated studies on wildlife movement in the project area, including the area traversed by the all-season road and winter caribou.

NIRB Comment:

The FEIS refers to ground surveys conducted along the all weather road corridor in October 2005 and bimonthly for the remainder of the year.
Provide the results of those surveys and a discussion of how those results affect the wildlife assessment in the area of the all weather road

Cumberland's Response:

Ground surveys conducted along the all weather access road in October 2005 are part of the long-term monitoring program for the mine, and were not intended as baseline data to support the impact assessment (TEIA). Nevertheless, ground surveys conducted in October 2005 were surprising in that fewer than expected caribou were encountered. The low numbers of caribou in the region were also confirmed by aerial surveys of the RSA and by Baker Lake hunters. These results may indicate fewer caribou in some years or early winter than was assumed for the impact assessment, possibly making the existing impact assessment (i.e., TEIA) more conservative than necessary. Results for other species, such as wolves and ravens, were within expectations for the season. Results for the 25 and 27 October surveys are provided below.

Table 1. Total Recorded Observations of Wildlife Species and Sign from Ground Surveys along the All Weather Access Road in October 2005.

Species and Sign	October 2005 Ground Surveys	
	25 October	27 October
MAMMALS		
Arctic Fox	1 ind.	
Arctic Wolf	2 sets of fresh tracks	1 set of fresh tracks
Barren-ground Caribou	1 cow carcass fed on by wolves	1 ind; 11 sets of fresh cow and calf tracks
Wolverine		1 set of old tracks
BIRDS		
Common Raven	1 ind.; 1 feeding on cow carcass	3 ind.

6.3) Waste Rock and Tailings Management

a) Better discussion of cover/capping program including cover materials, thickness, mitigation to avoid pollution of both surface and ground waters, and wind blown contaminants.

NIRB Comment:

Discuss cover/capping mitigation program to avoid wind blown contamination.

Cumberland's Response:

Please see attached Golder document.

6.4) Climate Change

a) The impact of climate change on tailings management

NIRB Comment:

Provide plan for monitoring permafrost development in tailings area.
Provide plan for the case where tailings do not freeze as predicted.

Cumberland's Response:

Please see attached Golder document.

6.8) Socio-economics

c) Essentially, a better discussion of the potential negative social effects on the Baker Lake community as well as the potential effects of hiring from the Kivalliq region, including Chesterfield Inlet.

NIRB Comment:

Provide assessment of potential effects to Chesterfield Inlet from the employment, training and business opportunities provided by Cumberland.

Cumberland's Response:

Potential effects on Chesterfield Inlet from employment, training and business opportunities provided by the project are not expected to be significant, except to those few individuals who may be able to access what are expected to be limited opportunities.

Should Chesterfield Inlet be accorded second priority for employment and training opportunities, as a result of ongoing IIBA negotiations, Cumberland would expect to look first to Chesterfield to identify people to fill positions it has not been possible to fill from Baker Lake. Given the demand for Cumberland employment in Baker Lake, it is expected that most if not all jobs requiring no or little mine related skill and experience could be filled from that population. While individuals from Chesterfield may qualify for more skilled positions, and such individuals will benefit significantly from well paid, full time permanent employment, it is not considered likely that a large number of such individuals can be found. This conclusion is based on census data, discussions with Chesterfield government and residents and mine skill and expertise requirements.

Businesses have potential to be affected by procurement opportunities and by loss of skilled employees to Cumberland. The latter effect could also be felt by the main formal sector employer in Chesterfield, government. An exodus of government employees could have implications for service delivery.

The business establishment in Chesterfield is very small, and oriented to meeting consumption needs of residents. Cumberland and the KIA have yet to identify any businesses that can compete with similar businesses in Baker Lake, with first priority for economic opportunity, to supply goods and/or services to the project. Business benefits may be realized in the future, contingent on interest and participation in programs under the IIBA intended to support business, however it is premature to speculate what these might be.

While it is possible that the already employed in Chesterfield may chose, given the opportunity, to leave present employment for Cumberland jobs, this is not expected to occur in significant numbers. The Chesterfield employed is largely comparable to the Baker Lake employed, predominantly working in retail and government services. With

high demand for jobs in Baker Lake, and comparable skill and experience levels, most jobs accessible to Inuit will go to Baker Lake individuals. It is also noted that whereas there are some older individuals in Chesterfield who worked in mines near Rankin Inlet many years ago, their ages and out dated skills relative to modern mine operations suggest that capacities to work for Cumberland will be constrained, although this will be confirmed as recruitment is begun.

6.9) Traditional Knowledge

a) Better discussion of the use of Traditional Knowledge in reaching conclusions in the Final EIS, particularly with regard to the impact of the road on Baker Lake, and the impact of the Project on other Kivalliq communities (concerns regarding the lack of jobs for Chesterfield Inlet and Rankin Inlet, and the issue of offloading fuel and shipping up the river from Chesterfield Inlet area).

NIRB Comment: Provide a succinct discussion on the use of Traditional Knowledge in assessing the impact of off-loading fuel and shipping up the river from Chesterfield Inlet area.

Cumberland's Response:

The TK we gathered from the HTO in Chesterfield indicated that marine shipping and other activities have not had an effect on marine wildlife or harvest levels and therefore this impact was rated as insignificant and no further study was required. It is not certain that any off loading of fuel will take place since Cumberland may use barges from Churchill which can be towed all the way to Baker Lake without "lightering". Further information can be found in our response to Key-Issue 6.7 which indicates that environmental liability for any fuel transfer will largely be the responsibility of other parties. Likewise any activity undertaken in respect of a transfer will be by third parties not Cumberland.

28) Provide confirmation of the capacity of the tailings impoundment area to provide for extra volume needed for ice entrapment potential, use for lake sediment disposal and future mine expansion.

NIRB Comment

Confirm capacity of the TIA to provide for lake sediment disposal and future mine expansion.

Cumberland's Response:

Please see attached Golder document.

31) Include a discussion of mitigation measures for the potential effects of the fault under tailings dike (i.e. possible grouting, and/or artificial freezing) in FEIS within the context of groundwater modeling during operation

and post-closure period

NIRB Comment:

Discuss the extent to which the tailings dike grout curtain mitigates the effects of seepage through the fault under the tailings dike during operation and post closure.

Cumberland's Response:

Please see attached Golder document.

37) Provide long term post closure groundwater flows, pit lake stratigraphic, and chemistry analysis

NIRB Comment:

Provide long term post closure pit lake stratigraphy and chemistry Analysis

Cumberland's Response:

Please see attached Golder document.

38) Provide inflow modeling to determine groundwater inflow quantity and Total Dissolved Solids (TDS) concentration during mine operation to NRCan

NIRB Comment:

Confirm that NrCan has received the groundwater inflow model.

Cumberland's Response:

Yes the information was sent to NRCan.

44) Provide a materials balance showing available waste rock types (UM, IV, IF/PAG, non-PAG) versus volumes of disposal in waste rock pile and volumes needed for construction of various mine components. If waste rock is going to a waste rock pile, indicate which pile.

NIRB Comment:

Materials balance should compare the types of material available with the types of material required for construction of various mine components.

Cumberland's Response:

Please see attached Golder document.

45) Provide maps indicating locations of samples for PAG rock determination in FEIS.

NIRB Comment:

Drawings 1 and 2 are very difficult to impossible to read. Consider separating groups of samples onto separate drawings and ensure labels are legible.

Cumberland's Response:

Please see attached Golder document.

47) Identify the revised size of Portage Waste rock pile considering that portion of waste rock being moved to Goose pit and confirm that fish bearing waters will not be impacted.

NIRB Comment:

Discuss potential impact to fish bearing waters.

Cumberland's Response:

Section 6.1.5 of the Aquatic EIA states, "The dimensions of the waste rock piles do not impact any fish-bearing or non-fish bearing lakes." Size of the Portage waste rock pile has been reduced to avoid impacts to fish bearing waters. Rock piles will be surrounded by collection ditches to ensure that runoff from the piles is directed to the attenuation pond and does not enter small ponds adjacent to the pile. Figure 6.1 of the Aquatic EIA (Year 8 of mine development) clearly shows that the Portage Rock Storage Facility does not intrude into any aquatic environment.

55) CRL to provide the reference document showing baseline water quality in the various lakes, including location, time and sampling of the water for chemical testing

NIRB Comment:

Hardcopy of Table 5.1 is not completely legible, although electronic version is complete.

Cumberland's Response:

A hard copy version of table 5.1 can be provided to NIRB if necessary.

66) Assess wildlife and terrestrial baseline conditions along access road and conduct overall impact assessment

NIRB Comment:

Provide results from late October 2005 aerial survey of the RSA including all-weather road area. Show map of terrain and soils in the RSA and LSAs. The overall Terrestrial Ecosystem Impact Assessment lacks detail, particularly for impacts related to all weather road and quarrying activities.

Cumberland's Response:

<u>October 2005 Aerial Survey Results</u>
The October surveys were not intended to provide baseline data for the impact assessment, but rather, were part of the long-term monitoring program for the project. Nevertheless, we are happy to provide the results here.

Individual caribou were not seen on the surveys. Low numbers of caribou in the Baker Lake were also confirmed by local hunters (T. Mannik, pers. comm., 2005). Based on recent discussions with Mitch Campbell and other members of the Beverly Qamanirjuag Caribou Management Board in late November 2005 (BQCMB annual meeting in Winnipeg), it seems possible that the larger numbers of caribou observed in August and September in the study area are individuals of either the Beverly, Ahiak, or other unnamed herds on their southward migration. The larger numbers of caribou seen in mid to late winter are likely mostly members of the Lorillard, Wager Bay, Boothia Peninsula or other unnamed northern herds that move into the area during the winter. The month of October may represent this 'in-between time' in caribou distribution in the area. Further discussions regarding herd distribution and seasonal abundance are planned with Government of Nunavut wildlife biologists, and Cumberland intends to continue monitoring caribou distribution and abundance in the RSA. The results of the late October 2005 aerial survey do not affect the conclusions of the impact assessment. If anything, the assessment is more conservative than is warranted. Results of the surveys are provided in the table below.

Table 2. Total Recorded Observations of Wildlife Species and Sign from the October 2005 Aerial Survey of the RSA.

Species and Sign	October 2005 Aerial Survey 28 October
MAMMALS	
Arctic Fox	1 ind.
Arctic Wolf	1 ind.
Barren-ground Caribou	Several sets of tracks
Muskox	33 ind. in three groups (25, 2 and 6)
Wolverine	1 ind.; 1 set of tracks
BIRDS	
Common Raven	2 ind.

Terrain and Soil Mapping for RSA and LSA

The requested information has been previously submitted to NIRB. Terrain and soil information for the Baker Lake marshalling area was provided in Cumberland's first submission (28July 2005) responding in part to Commitment 25 (see Item 151 under folder 07-TECH_MTG_PHC). The report title is "Geomorphology of Baker Lake Marshalling Area and Recommendations for Alternative Site Selection, Meadowbank Project, Nunavut". Terrain and soil information for the Tehek Lake Access Road, the Meadowbank area, and again the Baker Lake marshalling area was also provided in Appendix C of the Physical Ecosystem Baseline Report (see Folder 8-Final_EIS, Item 174).

Impacts Related to All Weather Road and Quarrying

The impacts of the all weather access road and associated potential quarry sites on Wildlife VECs have been previously discussed in our response to Commitment 67 above.

81a) Identify particular areas along shoreline of 3rd Portage Lake that might be at risk from slumping during dewatering of 2nd Portage Lake to improve impact prediction and mitigation measures during higher than anticipated years. Impact of increased flows on downstream areas of Second Portage Lake to be addressed.

NIRB Comment:

Clarify maximum increased flows downstream of project lakes and the impact of the increased flows on downstream areas.

Cumberland's Response:

A thorough discussion of the increase in water level in Third and Second Portage lakes as a result of dewatering is provided in Section 6.1.2.1 of the Aquatic EIA. Tehek Lake is the next downstream project lake that ultimately receives discharge from all other project lakes. The following text is taken from this section and pertains to the issue of discharge to Tehek Lake. "The residual water volume discharged to Tehek Lake occurs in the same year as water is discharged to Second Portage Lake. The discharge channel connecting the project lakes with Tehek Lake is fairly large and accommodates a wide range in flow. In 2002 (a relatively wet year), total annual discharge from the project lakes was 38.5 Mm^3, while in 2003 and 2004 (relatively dry years), discharge was 26.9 M m^3 and 22.3 M m^3, respectively. Discharging an additional 8.6 M m^3 of water to Second Portage Lake during Year-1 will increase discharge from Second Portage Lake to Tehek within observed bounds during the three years that outflow from this channel has been monitored."

The incremental addition of water to Tehek Lake from Second Portage Lake is relatively very small and is negligible relative to the receiving environment volume of Tehek Lake, which is considerable given its large size (455 km^2). The increase in water level or flow would not be measurable.

91) Fisheries surveys for Phaser Lake, NF-1 and the associated connecting channels will be conducted to determine species presence, abundance and habitat function. Project-affected watercourses in the barge landing facility, with the potential to support fisheries, will be sampled. All surveys will be conducted at appropriate times of the year to take advantage of any potential spring-spawning fish or migration of fish during spring freshet

NIRB Comment:

Provide information on fish sampling surveys for watercourses affected by the barge landing facility.

Cumberland's Response:

The barge will be grounded and moored at the beach so there will be no in water constructions and no watercourses affected by or in the vicinity of the barge landing facility therefore no studies are planned. The immediate nearshore environment (< 1 m depth) of Baker Lake where barges will land is within the ice-scour or wave zone of the lake. Bottom substrate consists of coarse gravel/cobble. This shoreline does not provide important habitat for any fish species.