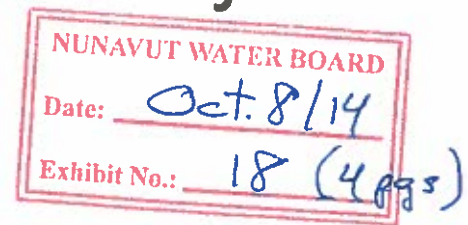




September 24th, 2014

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0B 1J0



Email: licensing@nunavutwaterboard.org

Dear Ms. Beaulieu,

**Re: CanZinco Responses to Intervener Comments on Technical Meeting / Pre-Hearing Conference
Commitment Submissions**

CanZinco has reviewed the comments provided by the Aboriginal Affairs and Northern Development Canada, Fisheries and Oceans Canada, Environment Canada and the Department of National Defence. Our responses to the comments are summarised in the enclosed table.

Sincerely,

Johan Skoglund
CanZinco Mines Ltd.

Enclosure: Table of CanZinco responses to interveners comments

Responses to Intervener Comments on Technical Meeting/ Pre-Hearing Conference Commitment Submissions

Comment #	Intervener	Intervener Comment	Reference to Application	CanZinco Response
1	AANDC	<p>It is still unclear what will be the end use of the remaining soil yet to be treated. Will the soil be placed back in Area 4 of the former tank farm or will it be placed or stockpiled elsewhere?</p> <p>AANDC recommends clarifying what the end use of the treated soil will be and where the treated soil will be placed in both the short term and in the long-term.</p>	Technical Meeting (TM) Pre-Hearing Conference (PHC) Commitment 1	<p>The end land use for the treated soil is commercial land use. In the short term, the treated soil will be placed in the southern portion of the former bulk fuel storage facility which is in the vicinity of Area 4 and outside of the DND construction zone. Alternatively in the short term, at the discretion of DND, it will be reused during the redevelopment of the site. In the long-term, the soil will be made available for road repairs and other commercial or industrial uses.</p>
2	AANDC	<p>The document makes reference to conducting toxicity tests on two soil types: a field-collected soil and an artificial soil spiked with fractionated samples of a sweet crude oil.</p> <p>AANDC recommends that the proponent describe how close these two soil types are both physically and chemically as well as providing rationale as to why sweet crude oil is an acceptable indicator for the gasoline/diesel contaminants.</p>	TM/PHC Commitment 8	<p>The statement referenced by AANDC relates to the methodology applied in the development of the Canada-Wide Standards for Petroleum Hydrocarbons.</p> <p>As described in the memo prepared by Hemmera, the composition of F2 petroleum hydrocarbons in Nanisivik soils is different from the fractionated sweet crude oil used in the development of the Canada-Wide Standards. This means the ecotoxicity data used to develop the Canada-Wide Standards may not be appropriate for the soils at Nanisivik which, in turn, provides the rationale for CanZinco's decision to pursue Site Specific Soil Remedial Objectives (SSROs). We believe the use of site-derived ecotoxicity data will allow the generation of a more accurate and relevant soil remediation objective than the generic (Canada-wide) guideline currently applied.</p>
3	AANDC	<p>The document makes reference to ex-situ bioremediation.</p> <p>AANDC recommends that the proponent describe and explain what type of ex-situ bioremediation is being applied. The effectiveness of the technology in regards to the environmental conditions should also be incorporated.</p>	TM/PHC Commitment 8	<p>The reference to ex-situ bioremediation simply refers to the remediation methodology approved by the NWB and applied on site since 2011. This methodology is described at length in the 2010 Abandonment and Reclamation Plan and in the updated Abandonment and Reclamation plan submitted in response to Commitment 1. The effectiveness of the methodology is documented in the 2012 and 2013 contaminated soil remediation progress reports submitted to the Nunavut Water Board (NWB) as part of the annual report.</p>
4	AANDC	<p>The document states that the most recent analytical results are not yet available.</p> <p>As these results are the basis for the proposed approach AANDC recommends that the proponent submit these results to the NWB for additional review.</p>	TM/PHC Commitment 8	Agreed

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5	AANDC	<p>AANDC is concerned about residual contamination in regards to the proposed methodology and approach. In particular, AANDC is concerned about the uptake of contaminants in the plant life after the implementation of the proposed technology.</p> <p>In addition, AANDC requests that the proponent consider the possibility of bioaccumulation in biota relying on such plants. As well AANDC recommends that the approach being implemented should be more robust, in that, the approach should not solely rely on plant growth but also include insect response.</p>	TM/PHC Commitment 8	We will be prepared to respond to the matter at the public hearing.
1	DFO	<p>Fisheries and Oceans Canada (DFO) has reviewed the Remediation Confirmatory Soil Sampling Methodology and Overview of Methodology used to Develop Site Specific Remediation Objectives submitted to the Nunavut Water Board on September 5th, 2014. We have no significant concerns with the information as provided. The <i>Federal Contaminated Sites Action Plan (FCSAP) Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils</i> and the Ontario Ministry of Environment and Energy <i>Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario</i> were used as reference for comparison. The methods presented by CanZinco/SRK are consistent with the general guidance outlined in these documents.</p>	TM/PHC Commitment 4 and Commitment 8	
2	DFO	<p>We (DFO) have also reviewed the Abandonment and Reclamation Plan submitted on September 15th, 2014 and have identified no significant issues with the plan as submitted. We do request clarification with respect to Section 3.4.3 Disposal of Liner. The SRK Bi-weekly report submitted to DFO for the period of August 23 to September 5, 2014 indicated a section of liner remains in Area 2 but is not mentioned in the Plan. We would like to confirm this liner will also be removed prior to site closure.</p>	TM/PHC Commitment 1	<p>The Bi-weekly reports are submitted directly to the DFO during periods of active remediation on the DFO leased land. The Bi-weekly reports are not included in the data filed on the public registry. An amendment to the 2014 Abandonment and Redamation Plan will be issued following the Public Hearing specifying that the liner remaining in Area 2 will be removed at the start of the 2015 field season and disposed of with the other waste liner generated by the project. The DND contractor is aware of the presence of the liner and has stated that its removal in June 2015 does not conflict with the redevelopment schedule for that specific area.</p>
3	DFO	<p>DFO will also provide further comments on the Nanisivik Mine Contaminated Soil Remediation 2014 Progress Report when received.</p>		<p>Submission of the 2014 contaminated soil remediation progress report is not a TM/PHC Commitment. The progress report will be submitted as part of the annual report to the NWB.</p>

Responses to Intervener Comments on Technical Meeting/ Pre-Hearing Conference Commitment Submissions

Comment #	Intervener	Intervener Comment	Reference to Application	CanZinco Response
1	DND	The remnant berm is still in place and DND would like to know what Canzico Ltd's plan is for dealing with it. DND is looking at information such as, but not limited to, soil sampling, location, depth, official chemical results from an accredited laboratory, compliance to the current CCME SQROs.	TM/PHC Commitment 1	Soil that is not contaminated with petroleum hydrocarbons is left in place. At the request of DND the excavation and surrounding area has not been regraded to match the existing conditions of the surrounding land. In 2011 the area of petroleum hydrocarbon impacted soil within the former bulk fuel storage facility was delineated. The results were provided directly to the DFO at the end of the 2011 field season. These results will be provided to the NWB in the 2014 contaminated soil remediation progress report.
2	DND	The Remediation Confirmatory Soil Sampling Methodology memo dated September 5, 2014. DND is looking for information about which official technical guidance document is being followed for the environmental confirmatory testing.	TM/PHC Commitment 4	The official technical guidance documents include the Federal Contaminated Sites Action Plan (FCSAP) <i>Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils</i> (SAIC Canada, 2006, editorial update 2013) and the Government of Nunavut, Department of Environment <i>Environmental Guideline for Contaminated Site Remediation</i> (March 2009) which in turn references the <i>Guidance Manual on Sampling, Analysis, and Data Management of Contaminated Sites, Volume 1: Main Report</i> (CCME, 1993). These documents do not provide detailed confirmatory sampling procedures and therefore guidance documents from other jurisdictions have been considered. The BC Ministry of Environment, <i>Technical Guidance on Contaminated Sites Statistical Application 12-14 Stockpiling</i> (2001) was considered in the development of the ex-situ confirmatory sampling procedure. The in-situ confirmatory sampling procedure was developed prior to the start of the remedial work at Nanisivik and is documented in the <i>Nanisivik Mine Reclamation and Closure Monitoring Plan</i> (Gartner Lee Limited, 2004).
3	DND	Please, also note that DND is waiting to comment on the 2014 Environmental Progress report which will provide more detailed information on the progress of the remediation. DND's expectation is that the report submitted this year will include at the minimum all previous final confirmatory sampling taken in the tank farm area (including the berm) with spatial location of the samples and final chemical results.		Submission of the 2014 contaminated soil remediation progress report is not a TM/PHC Commitment. The progress report will be submitted as part of the annual report to the NWB.
1	EC	EC does not have any additional comments on this application at this time.		