



EA 1415-01

Summary of the Technical Issues Scoping Session (8 July 2014)

Prairie Creek All-Season Road and Airstrip,
Canadian Zinc Corporation

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Introduction

The following is a summary of the primary issues identified at the technical issues scoping session for the proposed Prairie Creek all-season road and airstrip. The session was held on July 8th, 2014 in Yellowknife.

The session began with a presentation from the Mackenzie Valley Review Board (Review Board) staff describing the environmental assessment process, the purpose of scoping, and the next steps. Following the Review Board staff presentation, the developer, Canadian Zinc Corporation (CanZinc), gave a presentation describing the proposed project. CanZinc described the proposed route and airstrip locations.

The remainder of the session was devoted to identifying and prioritizing issues. This was done systematically by going through the Developer's Proposed Terms of Reference. A summary table of the comments and responses from the online registry system (ORS) for the Developer's Proposed Terms of Reference was used to guide the conversation with comments from the scoping session added into the table. A copy of the table has been appended to this report as Attachment 1.

Topics of discussion

During the technical issues scoping session, the following topics were reviewed:

- Scope of development including alternatives
- Geographic and temporal scope
- Valued components including baseline and effects assessment
 - Harvesting
 - Terrain, geology, soils, and permafrost
 - Granular materials
 - Climate
 - Air quality
 - Noise
 - Water quality and quantity
 - Wildlife and wildlife habitat
 - Vegetation
 - Traditional land use and cultural resources
 - Education, training, skills, and employment
 - Tourism
 - Ecological integrity and visitor experience of Nahanni National Park Reserve
 - Regional and local economies

- Species at risk and of concern
- Fish and aquatic habitat
- Existing transportation routes and related infrastructure
- Effects of the environment on the project
- Potential accidents and malfunctions
- Cumulative effects

Discussion from these topics refined the sub-topics that parties would like to see in the Terms of Reference and further clarified areas of agreement and disagreement between the parties and the developer. A summary of party and developer comments and responses can be seen in Attachment 1.

Potential key lines of inquiry

The potential key lines of inquiry identified (both through the ORS comments and the scoping sessions in Nahanni Butte, Fort Liard, Fort Simpson, and Yellowknife) were:

- Traditional harvesting
- Effects of spills
- Ecological integrity and visitor experience of Nahanni National Park Reserve

A brief description of each potential key lines of inquiry is described in the following sections.

Traditional harvesting

Traditional harvesting concerns were raised during the community scoping sessions the week of June 9th and reiterated during the issues scoping session in Yellowknife. The Nahᓃᓴ Dehé Dene Band (NDDB) and Parks Canada both stated that there is active traditional use by the NDDB in the area and along the proposed corridor of the proposed project. Parties are concerned that construction and operation may disturb or displace harvested species, particularly during sensitive periods. Both NDDB and Parks Canada are concerned about the potential for increased access by outsiders and the possible adverse impacts on traditional harvesting by the NDDB.

Effects of spills

During the scoping session concerns were raised about the effects to water quality and karst (a landscape of eroded limestone with many sinkholes and underground holes, caves and shafts). Effects to water quality include both surface water flow and subsurface flow. Potential accidents and malfunctions along the road may result in spills of concentrate, fuel or other contaminants to be released into the water and adversely affect water quality, aquatic habitat and the karst. Appropriate spill management practices need to be in place both to prevent and mitigate against spill events. In

addition, adequate baseline water quality data is needed to inform monitoring and ensure the management practices are working.

Ecological integrity and visitor experience of Nahanni National Park Reserve

Protecting the ecological integrity and visitor experience of Nahanni National Parks Reserve (NNPR) considers a number of the valued components discussed during the session, including:

- Fish and aquatic habitat
- Wildlife and wildlife habitat
- Species of concern
- Terrain, soils, geology and permafrost (including karst)
- Traditional use
- Vegetation

Consideration of these and other valued components will ensure the integrity of NNPR is preserved.

Consideration of an airstrip within the Nahanni National Park Reserve

The initial project description provided by CanZinc specified that it proposed a second airstrip “to facilitate air access to the mine when the mine [air]strip is inaccessible due to poor weather” (CanZinc Project Description Report). Based on the project description, Parks Canada stated that an airstrip within the NNPR cannot be authorized under the *Canada National Parks Act*. The activities within a park are restricted by Section 13 of the *Canada National Parks Act*. As noted in the written comments, and restated during the scoping session by Parks Canada, an amendment to the *Canada National Parks Act* was made when the NNPR expanded (Section 41.1) which provided a specific and limited exception to Section 13 and explicitly allowed for road access to the mine. Section 41.1 specifically states that,

“The Minister may enter into leases or licences of occupation of, and easements over, public lands situated in the expansion area for the purposes of...a mining access road leading to the Prairie Creek Area...including the sites of storage and other facilities connected with that road.”

Given the legislation in the *Canada National Parks Act*, Parks Canada requested that the airstrip within the NNPR be scoped out of the environmental assessment.

Further information presented by CanZinc (in correspondence dated June 27th, 2014) has revised its position to indicate that the airstrip would be used to support “road construction, maintenance/monitoring and restoration/closure.” In addition, airstrips were previously used in the area to support historical road projects.

With the updated description, Parks Canada stated, at the July 8th, 2014 scoping session, that it needs to consider the information presented and would provide an official statement at a later date.

With respect to the environmental assessment process, the Review Board stated that it will not delve into the legislative acceptability of an airstrip within the NNPR. The eligibility of an airstrip within the NNPR depends on the *Canada National Parks Act* and needs to be determined by Parks Canada. The Review Board's mandate is outlined in the *Mackenzie Valley Resource Management Act* and the Review Board does not have the authority to weigh in on decisions outside its legislated mandate. The environmental assessment can currently assess an airstrip outside of the NNPR. The environmental assessment process is amenable to accommodate the decision regarding an airstrip at a later time.

Next Steps

The Review Board anticipates releasing its *Draft Terms of Reference* before the end of July. The *Draft Terms of Reference* will be open for comments from parties for two weeks followed by a week for CanZinc. Once the review of the *Draft Terms of Reference* has been closed, the Review Board will issue its final *Terms of Reference*. This is anticipated to occur in early September.

Consideration of Previous EA Material

Under Section 115(2) the Review Board is required to consider, and may rely on, material from previous EAs of the same development. The material can be referred to the existing EA by the developer, parties, or the Review Board.

Attachment 1:

**Summary Table of Comments and Responses from the
Online Registry System and the Technical Issues Scoping
Session**

Prairie Creek All Season Road and Airstrip – July 8, 2014 Issues Scoping meeting
Summary Table of Comments and Responses from Online Registry System and the Technical Issues Scoping Session
Topics listed in order of Developer's Terms of Reference (left hand column)

SCOPE OF DEVELOPMENT and DEVELOPMENT DESCRIPTION		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<ul style="list-style-type: none"> all season road will use the same alignment as the winter road expanded Tetcela Transfer Facility (TTF) construction and use of a second airstrip <p>Phase 1</p> <ul style="list-style-type: none"> Establish all-season quality from km 0 → 84 Existing all-season from km 0→39 Transport concentrate from km 84→ 184 using winter road Stockpile concentrate at TTF TTF main storage location <p>Phase 2</p> <ul style="list-style-type: none"> Establish all-season quality from km 84 → 184 Barge across the Liard River during open water Transport concentrate via Hwy 7 to Fort Nelson No stockpile of concentrate at TTF 	<p>PCA 2: outline the economic feasibility of the proposal including what specific conditions need to be in place for both phases of the project to go forward</p> <p>→ CanZinc We have been clear that the proposed development would occur in stages, starting with the winter road, then the Phase 1 all season road development, and ultimately the Phase 1 development. Therefore, Phase 1 could go ahead without Phase 2, at least for a period of time. We were also clear that because of the expected cost of Phase 2, whether we proceed with that phase is dependent on economics at the time (increased revenue from getting concentrates to market sooner verses the cost of the road). However, in our opinion, consideration of economic feasibility has no bearing on EA scoping and should not be included. Financial considerations are only relevant to CZN's ability to restore the road after closure, which is a security consideration.</p> <p>NDDB 19: prepare a comprehensive break down of the project description and activities by Phase, including a discussion of the need for each Phase and a cost/benefit/risk analysis of each Phase, relative to the currently permitted project</p> <p>→ CanZinc: CZN intends to permit Phase 1 and Phase 2, and we agree that each phase should to be explained and assessed separately. However, 'cost/benefit' is not an appropriate part of EA scope, and in any event this changes over time in response to metal prices and construction costs.</p> <p>NDDB 15: CZN conduct a thorough risk/cost/benefit analysis of the option of using an all season road from the mine site to the TTF and utilizing a winter road only beyond that point</p> <p>→ CanZinc: no response</p> <p>PCA 4: scope out airstrip in NNPR</p> <p>→ CanZinc: As explained in our submission under separate cover, we disagree.</p> <p>NDDB 2: withdraw its application for the Phase 2 expansion and focus only on the expansion from the mine site to the TTF.</p> <p>→ CanZinc: We propose to assess and permit both Phase 1 and Phase 2 of the project. Economic conditions can vary over the life of any mining project, and proponents are always considering ways to</p>	<p>EC: Separation between phase 1 and phase 2 in the DAR?</p> <p>→ CanZinc: timing of phase 1 and phase 2 not fully known at this time but will be discussed in the DAR</p> <p>NDDB: Rationale for second airstrip appears to have changed to support road construction. Clarify rational for airstrip east of silent hills and cat camp</p> <p>→ CanZinc: Rationale includes backup for mine, road construction, emergencies and fire response. CanZinc will provide more information on rationale for airstrips in DAR. Airstrip at Silent Hills may be winter only depending on discussions with NDDB.</p> <p>CanZinc: discussions planned with Parks on airstrip within NNPR</p>

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Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
	<p>optimize their projects.</p> <p>NDDB 3: provide specific information about what parties it is proposing to collaborate with for Phase 2</p> <p>→ CanZinc: This has nothing to do with EA scoping. CZN has proposed a project for assessment. The cost of the project and financing are not a necessary consideration for the EA. We merely indicated that a future decision to proceed with Phase 2 will depend on economics, as all such projects do, and that those economics might alter if there is collaboration. The project is not necessarily contingent on collaboration, and we have not sought out collaboration to date. Nevertheless, there is no reason why the project in its entirety should not proceed through the EA.</p> <p>NDDB 5: review the year round and long-term impact of a gravel all-season road on the landscape and on integrity of the land compared to the currently licenced winter road</p> <p>→ CanZinc: The statement is correct, the commenter is seeking to qualify it. We believe the recommendation embodies the Board's intent, albeit tempered by focussing the scope of assessment based on what has already been assessed for the winter road.</p> <p>NDDB 9: CZN more clearly articulate the scope of the proposed project</p> <p>→ CanZinc: the all season road project, the LTF would receive concentrates year round instead of only in winter. There would, however, be no significant changes to the LTF itself, or to the schedule of traffic leaving the LTF for Fort Nelson.</p> <p>NDDB 20: Describe each phase separately → CanZinc OK</p> <p>DFN 3: CZN clarify what portion of the road will be included in the EA and if any portion of the road is not included clarify the rationale.</p>	
<p>Project Components:</p> <ul style="list-style-type: none">• design standards• land requirements (footprint, location, permanent or temporary)• any proposed re-alignments• road construction methods	<p>PCA 22: components include the new borrow pits and any associated access roads</p> <p>→ CanZinc This is already included</p> <p>DFN 2: If CZN is intending to develop borrow pits or quarries, this</p>	<p>GNWT: borrow sources – would like a prioritized list of borrow locations.</p>

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Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<ul style="list-style-type: none">• cut and fill estimates and plans for excess material disposal/storage• water crossing structures and locations• alterations to stream flow• borrow source locations, quality and desired/expected quantities, activities and methods• temporary winter or all-season access roads to borrow areas• camps, staging areas, laydown areas, access roads and other support facilities• fuel storage and management• explosives storage, transportation, and use• toxic or hazardous materials to be used• equipment requirements (by phase)• solid and liquid waste management• water use• wastewater treatment• mobilization and demobilization (this should include a discussion of related activities and land requirements which are necessary for construction but not a part of the project)• frequency of vehicle and aircraft movement during construction• routine maintenance activities• expected traffic volumes during operational phase• clean-up and restoration of work areas during construction phase• reclamation• procurement and implementation approach• training, employment and business opportunities• ongoing operations and maintenance of the all season road• land requirements including footprint, location, permanent or temporary.	<p>should be included in the scope of the development.</p> <p>PCA 23: components include a detailed design of the Tetcela Transfer Facility (TTF) as well as a fire risk analysis of the facility</p> <p>→ CanZinc: Detailed design is not appropriate at the EA stage. Consideration of fire risk and related management requirements is justified</p> <p>CPAWS 12: include “Monitoring and management of public road”</p> <p>→ CanZinc: We tend to agree, however public access is an issue that needs to be addressed primarily in terms of hunting pressures and wildlife impacts, and access monitoring/management requirements should flow out</p> <p>DFN 8: include a spill response plan</p>	
Construction Phases and Schedule:	<p>NDDB 6: recommends that the Board get a clear and definitive statement and commitment from CZN regarding its long term intentions for mine production if an all season road to the Liard River were constructed</p> <p>→ CanZinc: At this time, we have no intention of expanding the Mine in terms of daily capacity. Capacity is limited by the size of</p>	

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Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
	equipment in the Mill, and it would be very expensive to buy larger equipment.	
<p>Existing infrastructure and facilities</p> <ul style="list-style-type: none"> • infrastructure and facilities, including the winter road, transfer facilities, and operation of the airstrip, frequency of use, type of aircraft, and estimated number of passengers and volume of material • how it will be used in the context of the proposed development • capacity of existing facilities and infrastructure to handle the proposed development • any changes to the existing infrastructure or facilities that will occur as a result of the project 		
<p>Existing Management Plans</p> <ul style="list-style-type: none"> • adequacy of existing and already required management plans and monitoring programs • documents are listed in LUP's MV2012F0007 and Parks2012-L001 	<p>GNWT 12: include a) an assessment of adequacy for the existing draft Wildlife Mitigation and Monitoring Plan; and to require a description of any proposed amendments to this plan b) consult with ENR</p> <p>→ CanZinc OK, but we will need to maintain the appropriate WMMP for the winter road, and consider separately how the plan should change for Phase 1 of the all season road, and then Phase 2, so that the plan is always specific to the project in operation.</p> <p>EC 2: clearly list and summarize the intent of required management plans and monitoring programs. The Proponent should also identify where additional management plans and monitoring programs may be necessary for the proposed development being assessed</p> <p>→ CanZinc Agreed, but perhaps this should read "if and where" rather than just "where".</p>	<p>EC: reiterated comments</p>

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SCOPE OF ASSESSMENT: ALTERNATIVES TO THE DEVELOPMENT		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
no practical alternatives to the project proposals, and no further analysis of alternatives will be made	<p>PCA 21: include consideration of alternative means to the proposal, including alternative routes or re-alignments. All of the project components should be described for key alternate routes or re-alignments</p> <p>→ CanZinc: We have been clear that the all season road will utilize the winter road alignment. We may consider and propose one or two minor re-alignments, but the route is essentially fixed due to adjacent very challenging terrain, especially crossing the Ram. We will consider access to a proposed airstrip in terms of the road alignment. These are the only alternatives we propose to consider and we believe they are only ones practical.</p>	PC: would like to know why the proposed route was selected.

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SCOPE OF ASSESSMENT: GEOGRAPHIC SCOPE		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<ul style="list-style-type: none"> Harvesting – within 50 km of the access road east of the NNPR; Terrain, soils, permafrost, and karst topography – within 30 km of the road; Granular materials - within 30 km of the road; Air quality (dust) - within 30 km of the road; Noise - within 50 km of the road; Water quality and quantity - within the immediate basin crossed by the road; Species at risk and species of concern – dependent on the species, but for birds, within 50 km of the road; Fish and aquatic habitat - within 1 km of the road downstream and all of the habitable portion of the stream upstream; Wildlife and wildlife habitat - within 50 km of the road; Vegetation (invasive species) - within 50 m; Traditional land use - within 50 km of the access road east of the NNPR; Ecological Integrity and Visitor Experience of Nahanni National Park Reserve – for ecological integrity within 50 km of the road; Employment and benefits to the community – the Dehcho region, Transportation infrastructure – limited to the Nahanni Butte access road east of the Liard River, and Liard River barge crossing location. 	<p>GNWT 5: for employment and business opportunities that was used in the terms of reference for EA0809-002 → CanZinc OK</p> <p>PCA 10: geographic scope of harvesting include the area of the road located within NNPR → CanZinc OK</p> <p>PCA 11: consider the effect of surface and subsurface watersheds on karst</p> <p>→ CanZinc: We agree in principle, however we think the case for cumulative impacts is tenuous at best and unnecessary in terms of evaluating potential impacts to watersheds.</p> <p>PCA 12: geographic scope for species at risk be specific to the individual species being assessed in order to address potential population level impacts</p> <p>→ CanZinc We agree in principle, however wood bison do not currently occur in the NNPR proximal to the road corridor.</p> <p>PCA 13: geographic scope for wildlife be specific to the individual species being assessed. This would include their seasonal and migratory ranges and areas needed for key life cycle requirements such as mating, calving, etc. →CanZinc OK</p> <p>PCA 14: geographic scope for assessing impacts on the ecological integrity of Nahanni National Park Reserve follow the geographic scopes identified for the valued components being assessed</p> <p>→ CanZinc: The recommendation doesn't fit the comment. In terms of visitor experience, we see very little difference in summer between the cleared winter road right of way with seven bridges and the same cleared area but with an all season road bed and a few additional bridges. Similarly, there will be very little difference between the winter road TTF and the all season road TTF, despite the approximate doubling in size, since it will still be small relative to the area. The presence of an additional airstrip would similarly be small relative to the area. Therefore, on reflection, visitor experience should not be part of the scope of assessment, or at worst, the geographic scope should be limited to the South Nahanni lowlands where nearly all visitation occurs.</p> <p>NDDB 13: Geographic scope:</p>	<p>GNWT: geographic scope of water – clarify watersheds. → CanZinc. Water quality baseline has been established. For assessment, scope needs to broad to capture effects</p> <p>PC: Impacts on karst and water quality, should consider effects to surface water and ground water</p> <p>PC: Expect wood bison would be in the park. Geographic scope to include bison for both phase 1 and phase 2</p> <p>GNWT: employments and benefits to the community. Recommend same geographic scope as in previous EA. Specifically differences between winter vs all-season</p> <p>PC: Mandate to protect park, ensuring quality visitor experience is retained in the NNPR</p> <p>GNWT: comment 5, OK with CanZinc wording comment</p> <p>GNWT: , Section 7.2.12, p 22 of DPToR, insertion of bullet on number 4, “effects on tourism activities in the region from all season access”</p> <p>GNWT: Expand on employment and benefits and potential impacts</p> <p>CanZinc: Will describe this in the DAR. This EA will look at the difference between the winter road and the all season road. Geographic scope the same as past EA.</p> <p>GNWT: some uncertainty about what has previously been assessed and what is new.</p> <p>Board staff response: the Board will clarify this in its draft ToR.</p> <p>NDDB: no changes to comments</p>

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SCOPE OF ASSESSMENT: GEOGRAPHIC SCOPE		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
	<ul style="list-style-type: none">Gravel: less than 30km → CanZinc: This can be reduced to 5 kmWater: should not be limited to immediate basin → CanZinc CZN is not assuming that. However, we are assuming that surface water quality is essentially pristine, and we will use sampling in the basins crossed to confirm that. If a spill did occur, remediation would occur according to prevailing guidelinesfish geographic scope have to extend further downstream than 1 km → CanZinc We agree with the first part, but not the part suggesting fish studies downstream since we already know fish utilization in the creek systems crossed, and this will be no different immediately downstream. In short, in most cases, we will assume fish are present.wildlife: complete seasonal studies → CanZinc Seasonal studies are planned, and will be designed and carried out by our consultantvegetation: assess potential for invasive species → CanZinc We agree this requires assessment <p>CPAWS 6: The proposed second air strip is not included in the Geographic Scope of Assessment. In order to properly assess the impact of the project on each valued component, the precise geographic scope of the airstrip must be included in the Terms of Reference. Based on the information provided, we assume that the geographic scope for each valued component (listed in kilometres) was arbitrarily assigned. We request a clear definition of the practical effect to quantify the geographic scope of the impact of the road. The rationale for considering water quality and quantity dilution impacts assumes that the basin crossed by the proposed all season road is isolated from any other basins. We request that the geographic scope of the assessment include hydrological mapping as evidence that the basin crossed by the all season road is in fact isolated.</p> <p>→ CanZinc: Geographic scope is defined based on the valued component. The main consideration of effects from a second airstrip is related to wildlife, and that valued component has a broad geographic scope. Regarding water quality, see our response to NDDB above.</p> <p>DFN 6: that fish studies may extend further downstream than 1 km, to the reasonable limit to which dilution of sediment or spill might occur. DFN recommends that CZN revise this statement.</p>	

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SCOPE OF ASSESSMENT: TEMPORAL SCOPE		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
Mine life period covering all season road construction and use, unless the road is used for non-Mine activities subsequent to mine closure	<p>PCA 15: temporal scope also include the decommissioning of the road including removal of road crossing structures and restoration of instream and riparian habitats → CanZinc OK</p> <p>NDDB 14: clarify the mine life associated with this application and also clarify its liabilities associated with Phase 2 and how these would be fulfilled</p> <p>→ CanZinc The proposed mine life has been stated previously. CZN expects that it will be required to determine the necessary security to close and reclaim the all season road during permitting, and to post that security before project initiation</p> <p>CPAWS 7: clarify mine life including decommissioning and reclamation → CanZinc: includes decommissioning and reclamation</p> <p>DFN 7: clarify extent of mine life</p>	<p>NDDB: will there be use of road beyond the life of the mine. DAR should include complete decommissioning of the road upon closure of the mine</p> <p>CanZinc: Confirmed this</p> <p>EC: Noted different available times for construction to occur (e.g. winter construction vs summer construction). Impacts to environment are different during different seasons E.g. construction should not occur during prime breeding seasons</p> <p>→CanZinc: This will be considered - if equal choices, will aim to minimize impacts. Balance between construction needs and impacts to wildlife.</p> <p>GNWT: temporal duration for construction activities and the effects of the duration (eg long vs short duration events) for impacts on socio-ec and wildlife</p>

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VALUED COMPONENTS: Harvesting		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none">description of current and traditional harvesting, focusing on subsistence and commercial harvesting <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none">sensitive or important areas or habitatdirect and indirect alteration of habitatsensory disturbance and predicted changes in behaviour, energetics, health and conditionwildlife movement patterns, home ranges, distribution and abundancewildlife mortality due to harvesting and vehicle collisionsdisruption of sensitive life stages or habitat (e.g., migration, calving, denning, overwintering)population cycles, predator-prey relationships and increased human-wildlife interactionschanges in access, including increased access to the land and surrounding waters	<p>NDDB 18: In its DAR for EA08-09, CZN used anecdotal TK information rather than relying on the TK assessment carried out by the NDDB. The current assessment should draw from the formal NDDB TK assessment, of which CZN has a copy, and, as necessary, should include updated but appropriately gathered TK information, not anecdotal information</p> <p>→CanZinc: CZN will use all of the TK information currently available, which we know is extensive and does not require updating. We don't think the commenter should imply that the TK information CZN collected from NDDB elders is not to be trusted. This would be disrespectful to the elders</p> <p>PCA 27: the section on traditional land use include the effects of increase access on traditional users</p> <p>→ CanZinc: As noted above, out information is that there is currently no traditional use of the corridor. Increased access will actually provide a positive benefit for traditional users in this regard. We do not think it necessary to include this in the EA scope.</p>	<p>Parks: comments stand. There is active traditional use by NDDB along the corridor. Increased access by outsiders would affect traditional use by NDDB. On-going discussions about control of access to the park. Traditional harvesting is allowed and is occurring in Park.</p> <p>→CanZinc: Aware of harvesting in the Park but not aware of harvesting along the corridor</p> <p>Board staff: Review Board needs to be able to judge adequacy of access control. Board needs to know mechanisms and effectiveness.</p> <p>PC: Agrees</p> <p>NDDB: Significant concerns about increased access and increased access for hunting. Wants standard research protocols used for TK (such as guidelines on MVEIRB)</p>

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VALUED COMPONENTS: Terrain, geology, soils, and permafrost		
In DPToR	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none">• topography, geology, bedrock, unconsolidated surficial materials and terrain types, and soil types• borrow materials (including permafrost and ownership)• permafrost and ice-rich soils in the area of the all season road and regional climate and ground temperature changes <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none">• slope and soil stability, erosion and subsidence• karst topography• thaw slumps, compaction of organic peat lands, and potential for melt of ice rich ground• snow distribution, drainage, and avalanches.	<p>PCA 9: the potential impact to karst topography to be a key line of inquiry</p> <p>→ CanZinc: We agree with the majority of the comment, except for the end. The all season road will see the same volume and weight of vehicles as the winter road. There is no difference in bedrock stability between winter and summer conditions. A very detailed and thorough terrain assessment was completed previously (see Appendix 16 of the EA08-09 DAR), and this included detailed consideration of karst features and stability. It should also be noted that the road was re-aligned specifically to avoid bisecting the poljes and crossing a part of the plateau where sinkholes are proximal to the road. There is no justification for further assessment, which would not result in any additional adaptive management or mitigation plans than those already in place for the winter road. It should also be noted that the TTF is not on karst, and CZN is not considering any further road re-alignments on karst.</p> <p>PCA 24: includes specific impacts from the increased storage of concentrates at the Tetcela Transfer Facility → CanZinc: expansion is insignificant in terms of potential impacts on terrain, soils and permafrost, and as noted above, the TTF is not on karst.</p> <p>CPAWS 8: specific mention of karst. → CanZinc OK</p> <p>DFN 4: CZN provides a rigorous assessment within the EA of the following: Geotechnical work of karst areas, permafrost, landslide and erosion potential Impacts on wildlife species including assessment of summer wildlife surveys for boreal caribou (and potentially other large mammals) Fish and fish habitat from creek crossings and crossing structures Invasive plant species Spill risk assessment and spill response Impacts to Tetcela and Bluefish creek wetland valley</p> <p>PCA 16: existing locations of permafrost are not available for the entire winter road and will therefore need to be provided for the proposed all season road</p> <p>→ CanZinc: Parks Canada is aware that previous investigations along the alignment did not find permafrost, even in locations where it was considered possible to occur. This is also the case in a construction progress report from 1981. This is likely due to the location of the alignment on flat ground or south facing slopes. Further investigation will be undertaken, but no amount of investigation will be able to rule out the presence of permafrost. The important thing is to have a construction approach to address such conditions if they are encountered, as is the case for the winter road</p>	<p>PC: potential differences between winter and all season on karst such as increased weight of a road bed and changes to drainage, potentially more traffic at a higher speed.</p> <p>→CanZinc: Written comments still stand – do not agree there will be a change from winter to all season</p> <p>NDDB: Developer needs to substantiate assumptions that there will be no change from winter to all season</p> <p>PC: Permafrost. Construction techniques can mitigate; however, need to consider borrow pit amounts, and detailed design.</p> <p>PC: increased size (doubled) and use of TTF needs to be assessed (increased concentrate, spills)</p> <p>→CanZinc: Agree</p> <p>Board staff: the Review Board must consider past assessments. Aspects of previous EAs must be referenced. Parties need only referenced documents from past EAs for this EA.</p> <p>→CanZinc: Past EA should be brought forward but only parts of those assessments that apply to this all season road development.</p> <p>Board staff: The DAR is a stand-alone document. When referencing previous documents from past assessments, these documents must be added to the public record for this EA.</p>

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VALUED COMPONENTS: Granular materials		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
EFFECTS ASSESSMENT <ul style="list-style-type: none"> locations and desired/expected volumes of material from each proposed borrow site potential for excavation and use of rock that could generate acid rock drainage/metal leaching measures to limit the effect on the surrounding environment excavation requirements. 	GNWT 6: estimates of the area impacted by borrow sources and any access roads → CanZinc OK	NDDb: thorough analysis of borrow and borrow access required. Who will own and operate borrow pits. CPAWS; consider borrow pits, size and talus slopes EC: potential for ARD from borrow pits. Will there be a borrow pit management plan → CanZinc: previous EA suggested no ARD from borrow locations. PC and MVLWB require management plans ENR: similar to EC comments and concerns about remediation of borrow sources, overburden stockpile for reclamation

VALUED COMPONENTS: Climate		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
existing or baseline climate conditions and climatic variability and trends		None

VALUED COMPONENTS: Air quality		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
EFFECTS ASSESSMENT <ul style="list-style-type: none"> dust emissions from vehicles, equipment and stationary sources dust emissions by source for each phase, including quantity, timing and duration, normal operation conditions and upsets how changes in dust levels could have an impact on humans, wildlife and vegetation. 	CPAWS 3: emissions such as exhaust from vehicles should be assessed beyond the winter season → CanZinc: Exhaust gases pose an annual cumulative issue, not a seasonal issue. Annual quantities will be no different from the winter road, and do not require assessment. CPAWS 13: inclusion of combustion emissions from vehicles. → CanZinc: see above	CPAWS: accepts response from CanZinc

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VALUED COMPONENTS: Noise		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none"> road components and activities that could produce undesirable noise levels including source location, timing and duration sensory disturbance to fish, birds and wildlife, including caribou and moose disturbance of harvest and recreational activities, including tourism <p>potential impacts to wildlife harvesting activities and impacts to communities.</p>	<p>GNWT 13: include potential impacts to wildlife associated with noise from construction and operation of the proposed airstrip → CanZinc OK, except we discuss scope of assessment regarding the airstrip separately.</p>	<p>NDDB: noise associated with borrow development and crushing should be considered</p>

VALUED COMPONENTS: Water quality and quantity		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none"> existing water resources, , major drainages and watercourses detailed description of its hydrological characteristics flood levels and volumes will be determined for each major drainage or major watercourse Baseline water quality samples were collected previously <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none"> changes to surface drainage patterns and surface water hydrology alterations to streamflow hydrogeological resources possible contamination to surface water and groundwater drinking water quality for humans and wildlife discharge or seepage of wastewater effluent, contaminants, chemical additives, etc. changes to water quality at water crossings (bridges, culverts and other wetted areas) changes to water quality due to thaw slumps and other slope instability at water crossings erosion, sediment deposition, sediment re-suspension related impacts on sediment quality. 	<p>PCA 17: water quality data be to supplement current data → CanZinc We agree in principle, however this will be for baseline, not for the creation of water quality guidelines.</p> <p>CPAWS: collection of water quality baseline data be required as part of the cumulative effects assessment → CanZinc questions the relevance of collecting such broad water quality data</p> <p>CPAWS 4: consider both surface and groundwater → CanZinc OK</p> <p>CPAWS 9: collect seasonal samples → CanZinc: Both surface water and groundwater flow patterns will be considered.</p> <p>DFN 10: CZN proposes to use culverts along the proposed development, that CZN addresses the potential problem of erosion and hanging culverts</p>	<p>CPAWS: collecting baseline could inform monitoring and closure.</p> <p>NDDB: need baseline water quality info, regardless of when it was collected. Could be moved over from prev. EA</p> <p>→CanZinc: Agree that baseline is required</p>

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VALUED COMPONENTS: Species at risk and of concern		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none">the geographic extent of the speciesthe timing and duration of key life cycle stagesmethods to minimize the effects of the project on the species	<p>GNWT 8: baseline information about species at risk and species of concern should be described under a separate heading inspection 5 → CanZinc OK</p> <p>GNWT 14: list of topics under Section 7.2.7 (Species at risk and species of concern) be expanded to include those listed in Section 7.2.9 (Wildlife and wildlife habitat) and vice versa</p> <p>→ CanZinc: We agree in general, but many of the topics are species-specific so the topics lists will not be the same.</p> <p>EC 4: that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner. EC recommends that the Terms of Reference should also request that the developer outline strategies for both mitigation and monitoring of potential adverse effects to Species at Risk and those species designed as at risk by COSEWIC.</p> <p>→ CanZinc: We agree in principle, bearing in mind the differences between the already permitted winter road and the proposed project. We would suggest that the commenter's intent would likely best be served by review of the WMMP.</p> <p>CPAWS 14: compliance with management plans and recovery strategies required under both the NWT and Federal Species at Risk Acts</p> <p>→ CanZinc: To the extent that this is necessary, we will do so, but we don't believe it will be necessary.</p>	<p>EC: plans and strategies for these species should be evaluated in the DAR</p> <p>→CanZinc: agrees</p>

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VALUED COMPONENTS: Fish and aquatic habitat		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none"> • a description of fish habitat present at each of the planned water crossings • fish species • seasonal and life cycle movements and sensitive periods • habitat requirements for each life stage • local and regional abundance, distribution and use of habitat types and known sensitive or important areas • harvest pressures (subsistence and sport fishing) by species, season and geographic area. <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none"> • alteration or loss of fish distribution, abundance and habitat (including riparian areas) due to development activities during all project phases • effects of proposed watercourse crossings and temporary vehicle crossing methods • relevant policies, management plans or other measures to protect or enhance fish and aquatic habitat, such as timing restrictions, protected areas or regulations • sensitive or important areas • blockages to movement • potential for increased fishing • reclamation 	<p>DFO 1: information requirements should apply to both watercourse realignments and watercourse crossings → CanZinc OK</p> <p>DFO 2: Include effects of the proposed channel realignments, and effects of blasting on fish and fish habitat if applicable. → CanZinc Agreed, to the extent they relate to the all season road project (note, blasting to install the bridge crossing on Drum Creek was previously assessed).</p> <p>PCA 8: consider time to redevelop benthic community for stream relocations (Sundog Creek)</p> <p>→ CanZinc This will be considered, however our expectation is that the habitat value is low in the floodplain gravels, and can be replaced with relative ease.</p> <p>PCA 18 : more baseline information be provided for the Sun Dog Creek area where the re-alignment is being considered → CanZinc That is the intention.</p> <p>NDDDB 11: CZN work closely with Parks Canada to minimize any dislocation of existing stream beds and consider alternative approaches to accommodating road requirements</p> <p>→ CanZinc: The appropriate agency in this regard is DFO. Minor road realignment in lower Sundog Creek will actually reduce the number of crossings and be a positive. We do not expect that stream bed relocation will be a significant disturbance because this occurs naturally and frequently in the broad, alluvial floodplain.</p> <p>NDDDB 16: carry out fish and fish habitat studies for the Tetcela River / Fishtrap Creek and Bluefish Creek valleys - including the use of appropriately gathered TK information</p> <p>→ CanZinc: Previous studies have documented that the Tetcela River does host fish. Regarding Fishtrap and Bluefish creeks, previous studies indicated that, since the road crosses these creeks very close to the upstream edges of their catchments, and the creeks are heavily dammed by beavers all the way downstream, fish habitat quality is low and the potential for impacts is similarly low. We don't doubt that there were settlements and harvesting near their mouths. We are in possession of relevant TK information from EA08-09. We believe that TK study was exhaustive, and we see no basis for an 'update'.</p>	<p>PC: Sundog creek, comments about habitat stand</p> <p>NDDDB: comments stand</p>

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VALUED COMPONENTS: Wildlife and wildlife habitat		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none"> wildlife species presence, distribution and abundance, seasonal movements, habitat requirements and sensitive time periods species of importance to subsistence harvesters and to the guiding or outfitting industries species sensitive to harvest pressures habitat types and sites of special value or sensitivity migratory patterns, routes, and timing in relation to all season road route alternatives, construction activities, and operation existing invasive species. <p>Aerial surveys will be undertaken</p> <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none"> impacts on distribution and abundance, movements and home ranges direct and indirect alteration of habitat including direct project footprint impact habitat fragmentation and barriers to movement and gene flow visual or auditory disturbance and effective habitat loss effects of construction and pre-construction activities, including aircraft wildlife mortality due to harvesting and collisions changes to species distribution and abundance disruption of sensitive life stages important areas or habitat population cycles and predator-prey relationships increased human-wildlife conflicts (e.g. bear encounters) location of raptor nesting sites within 1km of the proposed road use of the project area by birds protected by the <i>Migratory Birds Convention Act, 1994</i> how road-related changes in harvest pressures could impact the resource ability of habitat or species to recover response to edge effects invasive species (vegetation and wildlife) 	<p>GNWT 9: Distinguish between potential impacts to boreal woodland caribou and northern mountain woodland caribou; and b) Require CZN to evaluate Project footprint within the boreal caribou range in the context of habitat disturbance definitions and thresholds identified in the national Recovery Strategy for the Woodland Caribou, Boreal population</p> <p>→ CanZinc a) We agree. b) Boreal caribou range primarily lies east of the Front Range, although some animals may occasionally move through Grainger Gap. No changes to the road or additional footprint is proposed east of the NNPR. Therefore we disagree in terms of habitat disturbance, however a case can be made for the potential for sensory disturbance to boreal caribou in summer.</p> <p>GNWT 10: to include wood bison as a valued component → CanZinc OK</p> <p>GNWT 11: address effect of all season road and airstrip on wildlife</p> <p>→ CanZinc OK, except we discuss scope of assessment regarding the airstrip separately.</p> <p>EC 6: include a discussion on the following: -Attraction of predators of birds and bird eggs to the project, or the provision of nesting or denning habitat for predators and scavengers; -Potential mortality from collisions with temporary or permanent tall structures or wires; and -Potential mortality from vehicle collisions → CanZinc OK</p> <p>PCA 19: seasonal wildlife surveys be designed and conducted in a scientifically defensible manner</p> <p>→ CanZinc: We expect our consultant to do exactly that.</p> <p>CPAWS 10: mention SARA and monitor seasonal movement for 12 months</p> <p>→ CanZinc SARA will be included. We have planned to undertake additional wildlife surveys, the content of which will be determined by our consultant.</p> <p>NDDDB 17: Aerial surveys should reflect shifts in seasonal use by wildlife, should be carried out under in collaboration with and under</p>	<p>NDDDB: this should be a key line of inquiry</p> <p>→CanZinc: Discussion of surveys and seasonality of surveys is ongoing</p>

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VALUED COMPONENTS: Wildlife and wildlife habitat		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
	<p>permit by the ENR Wildlife Division, and should incorporate NDDB wildlife monitors</p> <p>→ CanZinc As noted above, wildlife surveys will be conducted as designed by our consultant. These will require study permits from Parks Canada and the GNWT. The surveys will include aboriginal involvement.</p> <p>DFN 4: CZN provides a rigorous assessment within the EA of the following: Geotechnical work of karst areas, permafrost, landslide and erosion potential Impacts on wildlife species including assessment of summer wildlife surveys for boreal caribou (and potentially other large mammals) Fish and fish habitat from creek crossings and crossing structures Invasive plant species Spill risk assessment and spill response Impacts to Tetcela and Bluefish creek wetland valley</p>	

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VALUED COMPONENTS: Vegetation		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none">• vegetation and vegetation assemblages• identification of rare species or assemblages• human use and merchantable timber• existing invasive species• frequency of forest fires and post-fire succession. <p>The baseline for vegetation in proximity to the road was well established in EA08-09 and no additional data collection is considered to be necessary</p> <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none">• alteration or loss of species or vegetation assemblages that are rare, valued, protected or designated sensitive areas, important areas, or habitat• amount of merchantable timber removed and potential for facilitating use by communities• vegetation clearing, invasive species, road emissions and dust• changes to the soil, hydrological or permafrost regimes related to vegetation changes and right of way clearing• re-establishment of vegetation and reclamation of borrow sites and other disturbances.	<p>GNWT 7: require rare plants to be included as a valued component, and further surveys for rare plants should be conducted in areas where new disturbance is required that were not previously included in the assessment of the winter road alignment for EA0809-002.</p> <p>→ CanZinc This recommendation is illogical. The rare plant survey conducted selected sites for investigation to be representative of the entire road. None were found. The new footprint of the proposed project will be very small compared to the winter road footprint that will exist. The previous rare plant survey will be just as relevant to the all season project as the winter road. If there were any indication of the existence of rare plants in the previous survey, an additional survey might make some sense, but there wasn't. Therefore, further assessment is not justified from a technical or economic viewpoint, and would be contrary to the Board's stated objective of focussing the EA on those issues requiring further assessment.</p> <p>PCA 6: rare plants be included</p> <p>→ CanZinc The Parks Canada comment is inaccurate. A review of the rare plant study report shows that intensive survey was completed from Km 0 to approximately Km 24, and then four other sites in the park were visited in representative areas across the Ram Plateau and up to Wolverine Pass, the park boundary. An additional site was investigated near Grainger Gap. The survey was completed over 2 days. A total of 340 plant observations representing 193 species and 44 families of vascular plants were documented during the survey. No rare plants were found. It might be true that potential impacts from an all season road are much different from a winter road, but that doesn't change the fact that the previous rare plant survey was extensive, and is equally suitable for considering the potential for impacts from either type of road. Therefore, further field surveys of rare plants are not justified, and assessment of impacts of the all season road on rare plants is not warranted since none were found.</p> <p>CPAWS 11: consider existing and new information on rare plants</p> <p>→ CanZinc See are response to Parks Canada above. We believe the rare plant survey and assessment of potential impacts previously conducted is equally applicable to both the winter road and all season road.</p> <p>PCA 20: additional work be done to establish an up to date vegetation baseline characteristic of the entire length of the road</p>	<p>PC: There are sensitive and rare plants listed by ENR in area, want additional surveys beyond existing footprint for those sensitive species.</p> <p>GNWT: Agree with PC and new alignments need to be surveyed.</p> <p>CPAWS: concurs with PC and GNWT</p> <p>→CanZinc: same answer applies, will consider impacts on rare plants. The information on surveys are on registry from past EA. Areas previously surveyed in past EA will be brought forward.</p> <p>PC: Risk management approach for fire, (NDDB concurs) also GNWT fire smart</p>

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VALUED COMPONENTS: Vegetation		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
	<p>→ CanZinc: The vegetation units along the access road corridor established themselves over many centuries. They will not have changed over the relatively short period of approximately 30 years. The vegetation baseline was more than adequate for assessment of the winter road industrial development. It is just as adequate for assessment of the all season road industrial development. We would consider detail beyond that to be of a research nature, and to be the responsibility of Parks Canada.</p> <p>PCA 26: includes the change of vegetation due to fire management around the TTF</p> <p>→ CanZinc: If the subject here is vegetation removal to create a fire break, the area involved is very small in a broadly wooded plain, and the associated impact minimal. We disagree.</p> <p>PCA 28: include the potential of the project to increase forest fire risk. This should include a classification of forest cover fuel types along the Right of Way to indicate potential risk for forest fires</p> <p>→ CanZinc: We agree with the first part, but we believe the risks can be based on the presently defined vegetation units and compositions.</p>	

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VALUED COMPONENTS: Traditional land use and Cultural Resources		
Developer’s Terms of Reference	Comments from On-line Review	Comments from Scoping Session
EFFECTS ASSESSMENT <ul style="list-style-type: none">traditional lifestyles, values and culturecultural and spiritual sites and activities.	<p>GNWT 2: include an assessment of potential impacts to archaeological sites</p> <p>→ CanZinc : We disagree. Regarding new footprint, a new airstrip location would be either west of the Ram Plateau or on the western edge of the plateau, in a relatively flat area away from creeks. Any proposed re-alignments would be in this same area i.e. distant from the community of Nahanni Butte. Expansion of the Tetcela Transfer Facility would be approximately doubling the size in a broadly flat area of muskeg not proximal to creeks or passes. Borrow sources were identified previously. Additional sources will be sought, but have currently not been located. The new collective footprint of the project will be relatively minor in terms of area, and will represent a low risk of hosting heritage resources. CZN previously undertook two AIA's in what were considered to be high risk areas based on TK and archaeological desk review. Two site investigation campaigns, both involving elders from Nahanni Butte, failed to identify any heritage resources. It is highly unlikely that any further assessment in lower risk areas will. Therefore, further assessment is not justified from a technical or economic viewpoint, and would be contrary to the Board's stated objective of focussing the EA on those issues requiring further assessment.</p> <p>PCA 7: address requirements for the conservation of cultural resources</p> <p>→ CanZinc An overall archaeological survey has been completed previously, followed up with targeted AIA's. A new survey will not generate any better information and is not warranted. Construction activities and camps will be limited to the existing winter road right of way. There may be additional aggregate sources, but these will be small in area and will be located in areas of low risk for heritage resource occurrence. In the park, the main aggregate sources are talus slopes which have a very low risk of heritage resource occurrence. The consequence of additional surveys, other than the expenditure involved, will be that no heritage resources will be found, but that conditions should be included in permits for their protection if discovered. That is exactly how it is currently in winter road permits. Regarding traditional harvesting areas, during previous engagement in Nahanni Butte, we were told trappers currently active in the area (near Grainger Gap) favour road improvement because of the difficulty and cost of access to trap lines. Regarding portages and river corridors, an all season road will have no greater negative effect than the winter road, in fact the opposite, it will facilitate them. A very thorough and detailed TK assessment was completed independently by P. Redvers for the Naha Dehe Dene Band previously.</p>	<p>GNWT – ongoing discussion with PWNHC. New footprint for all-season road, TTF expansion, borrow sources, airstrip, and additional disturbances. Requires AIA as heritage values in new areas are unknown. Note previous AIA from past EA. 2009 AIA quote that new alignments would need new investigation. Also quote from 2012 AIA, new access alignments, airstrips. Noted past work but recommend new heritage assessment (AIA) for this project</p> <p>PC: support GNWT with additional AIA on new footprint.</p> <p>GNWT: Desktop first, then field study – phased approach</p> <p>→CanZinc: Wilbert -Sept 2011 study, with consultant and NB elders. 2nd Gap, Grainger Gap, described findings at sites. Polje Creek – moose during rut. Second survey: from LTF to Liard crossing then along alternate route to 2nd gap with Peter Marsailles. Local NB people surveyed route. Alan Taylor: 2 studies done, not sure what new study would be for</p> <p>GNWT: Noted past work, but new footprint needs heritage assessment, appreciate use of TK. Cite previous studies, new borrow sites can be areas of heritage value.</p> <p>Board staff: Request that GNWT Heritage and CZN discuss between themselves.</p> <p>NDDB: discuss within community whether new work should be done</p> <p>NDDB: change in PDR from past EA, winter only to all season. Useful for community to provide TK once new footprint areas have been determined for all season road. Input from community may be different for current proposal.</p>

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VALUED COMPONENTS: Traditional land use and Cultural Resources		
Developer’s Terms of Reference	Comments from On-line Review	Comments from Scoping Session
	<p>PCA 27: use include the effects of increase access on traditional users → CanZinc: As noted above, out information is that there is currently no traditional use of the corridor. Increased access will actually provide a positive benefit for traditional users in this regard. We do not think it necessary to include this in the EA scope.</p> <p>NDDB: assessment should draw from the formal NDDB TK assessment, of which CZN has a copy, and, as necessary, should include updated but appropriately gathered TK information, not anecdotal information</p> <p>→ CanZinc OK, but doesn’t believe info needs to be updated</p>	

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VALUED COMPONENTS: Education, training, skills, and employment		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none">drawn from the DAR for EA08-09EFFECTS ASSESSMENT <p>EFFECTS ASSESSMENT</p> <ul style="list-style-type: none">direct and indirect employment opportunities generated by the development and the potential for uptake of these opportunities locally by aboriginal peoplesemployment and income for every year of construction and operation, with particular reference to wage and salary employment by length of employment, form of employment (full time, part time, seasonal), and skills categorymeasures, plans and commitments for maximizing local aboriginal employment and businessesmaximizing local aboriginal participation in contractor and sub-contractor business opportunitieseffects on capacity of local businesses to service other sectors during the construction phasetiming and duration of education and skills development programs that would be required for road-related employmentproposed education and training programs required for road-related construction and operation employment.	<p>GNWT 3: include approximate number of individuals in each phase crew; rotation schedule of the crews; location of camps (new or existing, temporary or permanent); employee alcohol and drug policy; if there will be security personnel at the sites; anticipated level of access that crews will have to surrounding communities; and whether it is expected that public access to the new all season road will have an impact on the level of policing service demands (e.g., does CZN anticipate an increase in traffic or need for patrolling?)</p> <p>→ CanZinc OK, , but the recommendation does not really reflect the comment. In terms of community impacts, there will not be a great difference between winter road and all season road construction and operation. Note that outside of winter, the community would have limited access to the road and vice versa because of required Liard or South Nahanni River crossings.</p> <p>GNWT 4: require the following information: potential negative effects of the Project (e.g., impact on crime rate, substance abuse, impact on family life associated with rotational work schedule, etc.); and potential impact of the Project on demand for policing services.</p> <p>→ CanZinc OK, except rotational work</p>	<p>GNWT: comments stand as is. Responses are what is wanted in DAR.</p> <p>GNWT Housing: Speculative migration into region as a result of development should be considered.</p> <p>NDDB: existing IBA but does not encompass all season road.</p> <p>→CanZinc: nothing to do with scoping.</p>

VALUED COMPONENTS: Tourism		
Developer's Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>BASELINE</p> <ul style="list-style-type: none">current tourist activity in the study area and revenue generateddrawn from the DAR for EA08-09 <p>EFFECTS ASSESSMENT</p>		<p>GNWT: see geographic scope comments related to tourism.</p> <p>NDDB: need rationale for how tourism would change if road continues long term. Developer should elaborate in the DAR.</p>

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VALUED COMPONENTS: Ecological Integrity and Visitor Experience of Nahanni National Park Reserve		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
BASELINE EFFECTS ASSESSMENT evaluate potential effects in the context of Parks Canada’s legislated and mandated priorities. This evaluation should consider impacts to ecological integrity and visitor experience		PC: ok with ToR wording

VALUED COMPONENTS: Regional and local economies		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
BASELINE • employment rate • employment by industry and occupation, including occupations related to traditional activities • job vacancy and unfilled positions, labour force growth, participation and balance between wage and non-wage sector activities and earnings growth be drawn from the DAR for EA08-09 EFFECTS ASSESSMENT		GNWT: cost of living changes in region should be considered

VALUED COMPONENTS: Existing transportation routes and related infrastructure		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
BASELINE • description of the use of the Nahanni Butte access road, and • the navigable water use of the Liard River at the proposed barge crossing location EFFECTS ASSESSMENT • DAR will describe and list the potential effects of the project on the water crossing of the Liard River (i.e. barges)	GNWT 15: require more information pertaining to traffic volumes and weights, and b) CZN consult with the Department of Transportation on the above anticipated use. → CanZinc: We agree regarding the Nahanni Butte Access Road which would be used in summer. We don't agree regarding Highway 7 since the traffic will be the same in summer as for the winter road. This is in terms of EA scoping, however CZN has a MOU with DOT and intends to continue the on-going dialogue independent of the EA.	GNWT DoT: winter road to all season changes timing. Note that Liard Hwy sensitive at certain times. Invitation to CZN to discuss and will advise Board of these discussions. NDDB: all season road changes with impacts different for phase 1 and phase 2 DFN: will Liard Hwy be in scope?

Prairie Creek All Season Road and Airstrip – July 8, 2014 Issues Scoping meeting
Summary Table of Comments and Responses from Online Registry System and the Technical Issues Scoping Session
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EFFECTS OF THE ENVIRONMENT ON THE PROJECT		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<ul style="list-style-type: none">• long-term climate change scenarios¹ (e.g., loss of permafrost, increased evaporation and evapotranspiration, greenhouse gas emissions)• how changes in permafrost are likely to affect the amount the granular material required for care and maintenance of the all season road• short-term climatic and extreme weather events• flooding, landslides and ground movement, changes in permafrost regime, subsidence, seismic activity, avalanches and fire.	DFN 4: CZN provides a rigorous assessment within the EA of the following: Geotechnical work of karst areas, permafrost, landslide and erosion potential Impacts on wildlife species including assessment of summer wildlife surveys for boreal caribou (and potentially other large mammals) Fish and fish habitat from creek crossings and crossing structures Invasive plant species Spill risk assessment and spill response Impacts to Tetcela and Bluefish creek wetland valley	GNWT: delays to construction from effects of environment and impacts of those delays

POTENTIAL ACCIDENTS AND MALFUNCTIONS		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
For each project phase, accidents and risks to consider include: <ul style="list-style-type: none">• concentrate spills, fuel spills, and resulting contamination of soil and water• explosion and/or fire• transportation accidents (air, land, water).	EC 3: consideration also be given to wildlife; such as, Species at Risk and migratory birds. → CanZinc: If the commenter means consider potential impacts to wildlife from a particular accident or risk, then yes, we would agree. DFN 4: CZN provides a rigorous assessment within the EA of the following: Geotechnical work of karst areas, permafrost, landslide and erosion potential Impacts on wildlife species including assessment of summer wildlife surveys for boreal caribou (and potentially other large mammals) Fish and fish habitat from creek crossings and crossing structures Invasive plant species Spill risk assessment and spill response Impacts to Tetcela and Bluefish creek wetland valley	EC: Need plans for differences in seasons concerning accidents and malfunctions GNWT: Phase? Break down of accidents and malfunctions in each phase. Would like i.e. Risks considered in steep mountain areas of road, at TTF etc. NDDB: Support consideration of accidents and malfunctions in different phases.

¹ See the Intergovernmental Panel on Climate Change’s most recent assessment report at <http://www.ipcc.ch/report/ar5/>

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CUMULATIVE EFFECTS ASSESSMENT		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>Water quality - possible impacts on tributaries of the South Nahanni River. Cumulative impacts on the Ram River, which Sundog Creek and the Tetcela River flow into, will not be considered because there is no current industrial development in that basin</p> <p>Wildlife - how the potential residual effects could be additive to residual effects from other resource development projects in the immediate vicinity or broader geographic region. And, how improved access may lead to increased hunting pressure</p> <p>Socio-economics - consider the additive effects of other actual or potential developments in the region.</p> <p>No study on Cat and Grainger Camps, the old transfer facility on the Liard River at Lindberg Landing, and Mine area roads and clearings</p>	<p>DFO 3: Cumulative effects on fish and aquatic habitat should be considered</p> <p>→ CanZinc: We will need to consider the definition of "cumulative effect", since we currently don't see a potential cumulative effect for fish and aquatic habitat</p> <p>Parks: consider the effect of surface and subsurface watersheds on karst</p> <p>→ CanZinc disagrees with cumulative effect to karst</p> <p>NDDB 20 and 22: break down of the environmental assessment by Phases so that reviewers can assess the impacts and effects of each Phase separately → CanZinc OK</p> <p>DFN 9: impact assessment be broken down by development, as the impacts of each development are quite different. Phase 1 of the road, Phase 2 of the road, airstrip, quarries (if applicable) and ferry.</p> <p>CPAWS 15: collection of water quality baseline data be required as part of the cumulative effects assessment</p> <p>→ CanZinc: We question the relevance of collecting such broad water quality data which would only serve to populate a broad, regional database. If a cumulative aspect exists in the future from a proposed development, that development will need to consider their baseline and cumulative issues, although such a development is not foreseeable at present. Moreover, we do not expect water quality to be significantly impacted from moving Sundog Creek. We will propose, and we will be required to implement, sufficient mitigation to ensure this does not occur.</p>	<p>GNWT: shifts in population. Cost of living, long term changes</p> <p>PC: water quality, 7.2.6, increase in use of TTF, risk of contaminant loading to water</p> <p>GNWT: Air quality. All-year round – waste incineration, waste management.</p> <p>CanZinc – store and haul waste out, will not incinerate.</p> <p>NDDB: Cumulative effects on Liard Hwy with Sahtu development could be considered.</p> <p>GNWT – note that since past EA, there are new projects using Liard Hwy (MVH, Sahtu O&G).</p> <p>CanZinc – who is responsible for assessing this? Our traffic volumes have not changed therefore we don’t need to assess this again.</p> <p>DFN – have consultant on file unfamiliar with previous EA</p> <p>CPAWS: how would this be assessed, specifically related to spills, requires an understanding of baseline</p>

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FOLLOW-UP AND MONITORING		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<ul style="list-style-type: none">The regulatory and non-regulatory monitoring requirements for the life of the projectUse of an adaptive management process		

CLOSURE AND RECLAMATION		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
The developer will provide a framework for the conceptual closure and reclamation of the project		

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KEY LINES OF INQUIRY		
Developer’s Terms of Reference	Recommendations from On-line Review	Comments from Scoping Session
<p>Phase 1:</p> <ul style="list-style-type: none">• Karst• Fish and fish habitat• impacts on wildlife from sensory disturbance and possible truck-animal collisions• Spill risk and management (with particular attention to water quality and fish) <p>Phase 2:</p> <ul style="list-style-type: none">• fish and fish habitat• impacts on wildlife from sensory disturbance, possible truck-animal collisions and hunting pressures associated with increased accessibility• Spill risk and management (with particular attention to water quality and fish)	<p>PCA 9: the potential impact to karst topography to be a key line of inquiry</p> <p>→ CanZinc: We agree with the majority of the comment, except for the end. The all season road will see the same volume and weight of vehicles as the winter road. There is no difference in bedrock stability between winter and summer conditions. A very detailed and thorough terrain assessment was completed previously (see Appendix 16 of the EA08-09 DAR), and this included detailed consideration of karst features and stability. It should also be noted that the road was re-aligned specifically to avoid bisecting the poljes and crossing a part of the plateau where sinkholes are proximal to the road. There is no justification for further assessment, which would not result in any additional adaptive management or mitigation plans than those already in place for the winter road. It should also be noted that the TTF is not on karst, and CZN is not considering any further road re-alignments on karst.</p> <p>CPAWS: key lines of inquiry are presented in a manner that clarifies that impacts will be assessed in all seasons</p> <p>→ CanZinc ok but Phase 2 should be with respect to wildlife only</p>	<p>GNWT: wait for Board’s draft ToR and comment on that document</p> <p>DFN: no reference to socio-ec in key lines of inquiry.</p> <p>NDDB: both phases should include all VC’s. KLI: Wildlife and wildlife habitat. Spills. Invasive species. Wildlife harvesting as KLI particularly in phase 2. Water quality related to spill risk and management. Intent of spill risk management to protect water quality, include barge landings.</p> <p>DFN: support NDDB views on key lines of inquiry.</p> <p>NDDB: cultural integrity on area if opened up due to new access.</p> <p>PC: our comment stands given sensitivity of karst. Heritage status. Karst should be a KLI Spills in summer different than in winter – impacts on ground and surface water</p> <p>→CanZinc: Question whether karst should be a key lines of inquiry</p>

Attachment 2:

Technical Issues Scoping Session Agenda

TECHNICAL ISSUES SCOPING DETAILED AGENDA

Prairie Creek All Season Road and Airstrip – EA1415-01

Date: Tuesday July 8th, 2014

Location: Yellowknife, Tree of Peace

Time: 9:00 AM -5:00PM

Estimated Time	ITEM
9:00am	Introduction and purpose of meeting – Board staff
	Project Description presentation – Can Zinc
	Scope of development including alternatives
	Project components and activities
	Construction phases and schedule
	Existing infrastructure and facilities
	Existing management plans
	Geographic and temporal scope
	Valued components including baseline and effects assessment (as shown in draft Terms of Reference)
	Harvesting
	Terrain, geology, soils, and permafrost
	Granular materials
	Climate
	Air quality
	Noise
11:50 am	<i>Break for Lunch</i>

Estimated Time	ITEM
1:00 pm	<p>Water quality and quantity</p> <p>Species at risk and of concern</p> <p>Fish and aquatic habitat</p> <p>Wildlife and wildlife habitat</p> <p>Vegetation</p> <p>Traditional land use and cultural resources</p> <p>Education, training, skills, and employment</p> <p>Tourism</p> <p>Ecological integrity and visitor experience of Nahanni National Park Reserve</p> <p>Regional and local economies</p> <p>Existing transportation routes and related infrastructure</p> <p>Effects of the environment on the project</p> <p>Potential accidents and malfunctions</p> <p>Cumulative effects</p> <p>Follow-up and monitoring</p> <p>Closure and reclamation</p> <p>Identification of Key Lines Inquiry from the above</p>
5:00	Adjourn

Attachment 3:

Technical Issues Scoping Sign-in Sheet

PLEASE PRINT

**Mackenzie Valley
Review Board**



Prairie Creek All Season Road and Airstrip - EA1415-01 [2014] Issues Scoping Meeting Sign-in sheet	
Location: Tree of Peace	Meeting Date: July 8, 2014
Facilitator: MVEIRB Staff	Meeting Time: 9:30am to 5:00pm
NAME	ORGANIZATION
1. Simone Tieleash	GNWT.
2. Shafic Khouri	GNWT - Lands
3. Scott Duke	DOT Canada
4. Alex Taylor	CZN
5. WILBERT ANTOINE	CZN - Fort Simpson
6. David Hargley	CZN
7. Rhonda Butcher	DOT / GNWT
8. Jana Shoemaker	GNWT.
9. Shannon Moore	CRAWS - NWT
10. Gila Somers	ENR / GNWT.
11. Paul Mercureli	LAB / GNWT
12. Loretta Ransom	EC.
13. GABRIEL BERNARD LACAILLE	EC.
14. DAVID ALEXANDER	common / NPMO
15. Erika Marteleira	EC
16. Sean Whitaker	ENR
17. Ansa Shafi	DWTH

THAT 321359

Mackenzie Valley
Review Board



Prairie Creek All Season Road and Airstrip - EA1415-01 [2014]
Issues Scoping Meeting Sign-in sheet

Location:	Tree of Peace	Meeting Date:	July 8, 2014
Facilitator:	MVEIRB Staff	Meeting Time:	9:30am to 5:00pm
NAME	ORGANIZATION		
18. Laurie McGregor	GNWT-ENR.		
19. Lorraine Seale	GNWT Lands.		
20. Nick Dennahewer	GNWT ITI		
21. Jonathan Tseto	Parks Canada.		
22. David Burt	Parks Canada		
23. Alison Stoddard	Parks NBDB AANBC CBC GNWT - ITI CZN BFN - Teleconference		
24. Peter Redvers			
25. Maureen Flagler			
26. Elizabeth McMillan	CBC		
27. Dianna Beck	GNWT - ITI		
28. Dave Nickerson	CZN.		
29. Dheiti Tasto	BFN - Teleconference		
30.			
31.			
32.			
33.			
34.			
35.			