MACKENZIE VALLEY ENVIRONMENTAL IMPACT AND REVIEW BOARD

PRAIRIE CREEK MINE ENVIRONMENTAL ASSESSMENT PUBLIC HEARING

Mackenzie Valley Review Board Staff:

Richard Edjericon Chairperson
Richard Mercredi Member
Danny Bayha Member
Peter Bannon Member
Rachel Crapeau Member
James Wah-Shee Member
Darryl Bohnet Member
Percy Hardisty Member

HELD AT:

Fort Simpson, NT
June 23rd, 2011
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<td>Jonas Antoine</td>
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1 APPEARANCES (cont'd)

2 Fons Schellekens  ) Natural Resources
3 Stephen Gooderham  ) Canada
4
5 Grand Chief Sam Gargan  ) Dehcho First Nation
6 Joe Acorn  )
7 Kirby Groat  )
8
9 Sarah Olivier  ) Department of
10 Pete Cott  ) Fisheries & Oceans
11 Lorraine Sawdon  )
12 Beverly Ross  )
13
14 Chief Jim Antoine  ) Liidlii Kue First Nation
15 Lorayne Moses  ) Nation
16 Cheryl Cli  )
17 Judy Sabourin  )
18
19 Jane Fitzgerald  ) Environment Canada
20 Anne Wilson  )
21
22 Michael Mageean  ) ITI, GNWT
23 Wilson Dimslake  )
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25
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3  Jonathan Tsebo  ) DCA Nahanni National
4  Eric Betsaka  ) Park
6  Chris Aguirre  ) Transport Canada
8  Allan Bonnetrouge  ) DRC
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<td><strong>Canadian Zinc to provide updated analysis and information based on the paste backfill as well as discrepancies identified with water quality objectives by July 8th, 4 p.m.</strong></td>
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--- Upon commencing at 9:17 a.m.

THE CHAIRPERSON:   Okay, good morning.

I'd like to call the public hearing together this morning. I think we've got everybody here. Before I start anything I just want to -- it's always good that we start a meeting with an opening prayer. So I'm going to start this public hearing with an opening prayer. So I'm going to ask Betty Hardisty to do opening prayer.

(OPENING PRAYER)

THE CHAIRPERSON:   Mahsi, Betty Hardisty, for doing opening prayer.

I want to say good morning to everybody here in Liidlii Kue First Nation Traditional Territory. This is the continuation of our public hearing that was started in Nahanni Butte yesterday. It's the environ -- Prairie Creek Mine environmental assessment 0809-002. That's the file number for this hearing.

Before we start I -- on the agenda, I just want to make mention to the presenters today that again we have a schedule. We want to continue to encourage that presenters stick to the schedule.

Also, I encourage you to also maybe use
different language in terms of your presentation so that people in the community have an opportunity to understand what's going on here. And so I encourage you to take a look at that for me.

So this morning I just want to welcome the Chief from Liidlii Kue First Nation here, Mr. -- Chief Jim Antoine. I want him to do opening comments, welcome comments, so I'll ask him to do that. Mahsi.

REMARKS FROM CHIEF OF LIIDLII KUE FIRST NATION:

CHIEF JIM ANTOINE: Mahsi. Mahsi, good morning. I just wanted to say that in my language, mahsi cho.

(INTERRUPTED FROM NORTH SLAVEY INTO ENGLISH)

CHIEF JIM ANTOINE: I'd just like to say thank you, you -- the Mackenzie Valley Review Board. And they're all arrived here. And there's a lot of people that knows us very well. And the reason why we're gathered here today is that up in the mountains there's a -- they wanted to develop the Prairie Creek mine. And we have previously had several meetings about it and how they're going to go about it, and how they're going to work on the land, how they're
going to protect the watersheds. Those are all the
information that was out.

And who -- it's not very sure about what's
happening. It'd be very important if you ask questions
and statement as -- as to how they're going to go forward
with this mine. There is a lot of information in -- in
the documents, and there's a lot of information that we
need to understand.

And today, all the people from Fort
Simpson that are here in it, the meeting, we'd like to
express our concerns as of today and tomorrow, going to
be here for the meeting. And like we're here from Fort
Simpson. We had several meetings with them, with
Canadian Zinc.

And we had several meetings. And whoever
was the Chief prior to with Chief Gargan that was in
time, and there was other people that were in place back
in 2008 with them. And I have started in June, that's
when I started being a Chief again, and I have worked
with him since.

And we had talked with him on several
occasions. And at the beginning, they said they were
going to fix things with them over in Nahanni Butte. And
because the mine was near their Community they had to be
the one to say the first statements and asked too what
was going to happen in their area.

And then, after that, we have the second say so as to what's going to happen there. And from that, there's going to be lots of things trans -- being transported over there from -- to the mine, and that's the reason why we all were here, and that's the reason why we made the impact agreement.

I -- back in June 16 we had a gathering here, and -- and because of that, we wanted to create jobs in our area and business, and that's the reason why we all had a meeting with them. That's the reason why they're thankful for -- for that.

And it's very -- I'm sure that the meeting is going to go very well today. And it's very important when you ask questions and how they're going to go forward with the mine, and that I'm very thankful for.

(INTRODUCTION CONCLUDED)

CHIEF JIM ANTOINE: I just want to welcome everybody to Fort Simpson, the Board members. I know a lot of the Board members here and from previous lives. I -- I ask them, Is this where we end up after retirement.

Well, of course, because they got a
tremendous amount of experience and -- and knowledge of the north in different fields. And so I really welcome every one of the Board members to come to Liidlii Kue. And all their staff and everybody else that -- that come here, well, welcome you. And whatever field that you're working in, I'm sure you're good at it. And Canadian Zinc team there, they have a whole crew. We welcome you to Fort Simpson.

I -- I spoke in my language to -- to talk about a few things, but I'm not going to repeat everything I said because I'm going to say that in English in my presentation, so.

I will just leave it at that, and welcome, and let's have a good hearing. It's a good process. And I think that some good questions will come out of it and I'm looking forward to the answers. Mahsi.

THE CHAIRPERSON: Thank you, Jim Antoine, Chief for Liidlii Kue Fist Nation. Mahsi for those welcome comments. I also just want to acknowledge the Dehcho Grand Chief that's here as well, Sam Gargan. I think he's here. Yep, he's in the back there, and I want to acknowledge him as well. And I want to acknowledge the Nahendeh MLA, Kevin Menicoche. Mahsi.

Before I start with my wel -- I mean, my comments, I want to go do introductions. So I want to --
I guess do the introduction. Maybe I'll just go around and then I'll finish off with the Board.

Well, maybe I'll go over to Canadian Zinc, and maybe I'll get you guys to do your introduction from that side, and then I'll go around our table.

MR. ALAN TAYLOR: Thank you, Mr. Chair. My name's Alan Taylor. I'm the chief operating officer of Canadian Zinc, and if I can introduce the rest of my team.

From right to left at the head table is Kevin O'Callaghan, Fasken Martineau, and to his right is David Harpley, and Wilbert Antoine is on the far right. And in the back we have our other consultants, Christoph Wels with Robertson GeoConsulting, Byard MacLean with SNC-Lavalin, John Wilcockson with Hatfield, and Chris Schmidt with Golder, and Bill Rozeboom with Northwest Hydraulics, and Dave Caughill with Golder Associates.

THE CHAIRPERSON: Thank you. We'll go to the Review Board now. To my far right I want to go to Board member -- Board member.

MR. PETER BANNON: Good morning. I'm Peter Bannon and I live in Yellowknife.

MR. DANNY BAYHA: Danny Bayha, Board member from Deline.
MR. RICHARD MERCREDI: Richard Mercredi, Board member, Fort Smith.

MS. RACHEL CRAPEAU: Rachel Crapeau, from Taticho (phonetic) near Dettah.

MR. PERCY HARDISTY: Percy Hardisty, Fort Simpson.

MR. JAMES WAH-SHEE: James Wah-Shee, Tlicho Nation.

MR. DARRYL BOHNET: Good morning. My name is Darryl Bohnet and I'm from Yellowknife.

THE CHAIRPERSON: Okay. Thank you. Now, we've also got our translators up here, as well. I think we have Betty Hardisty, our translator, and Ms. Cazon. She's also doing our translations.

So to the presenters, if -- if you see me waving at you or my -- my translators are waving that means you have to slow down a little bit, so maybe I'll let you know that.

Also when we start I'm going to ask you to turn off your cellphones, or put it on vibrate, or put it on silent, or just so that we don't have no interruptions. Okay. Thank you.

While we do that, I'm going to go back to my -- behind me. I'm going to go to my staff, and also legal counsel, so I'm just going to go to my staff behind
me and then some others around here as well.

MR. CHUCK HUBERT: Chuck Hubert, staff with the Review Board.

MR. JOHN DONIHEE: My name is John Donihee. I'm Board counsel.

THE CHAIRPERSON: Okay, thank you. We have also other staff here. We have Martin Haefele our -- senior manager of the -- the Review Board. I have -- we have Chuck -- sorry, Jessica Simpson and Paul Mercredi, here in the back as well, so those are the folks that will be roaming around with the mics and -- and helping out where necessary.

So I guess with that, I'm going to proceed to start the public hearing here today. So I just want to say again, Good morning to -- to everybody here. My name is Richard Edjericon, and I'm the Chair for the Mackenzie Valley Environmental Impact Review Board.

Canadian Zinc Corporation has applied for a water licence and land use permit to operate the Prairie Creek mine. In addition, two (2) land use permits have been submitted to operate the concentrate transfer facilities halfway along the winter road, and another transfer facility near the Liard Highway.

The proposed Prairie Creek mine was referred for land use assessment by Indian and Northern
Affairs Canada on its own behalf, and based on the additional requests from Nahanni Butte Dene Band in August 2008.

During an environmental assessment, the submission of information by parties and the developer, within the timeline prescribed by the Board, is important. The Board would like to thank those parties that did submit material within the time frame requested by the Board and remind those parties that missed the deadline of the importance of timely response during the course of the EA.

We have reached one (1) of the final stages of the environmental assessment. Now we're in the public hearing.

Today the Board wishes to hear the views and opinions that the parties and members of the public may have regarding this proposed development. Over the course of the day, we've asked that you do your best to help the Review Board to understand your views about this proposed development, potential environmental and social and cultural impacts, and the potential significance of these impacts.

The Review Board will fully consider these views while it's deliberating on its decision in this environmental assessment. Once the decision is made the
Board will write it down in the report of the environmental assessment and send it to the minister of Indian and Northern Affairs for acceptance.

Before we go any further, again, this morning I introduced you to the Board and the staff. I just want to acknowledge them. The Review Board is a co-management body under -- established under the Mackenzie Valley Resource Management Act that makes its decision by consensus.

Our members are northerners nominated by First Nations and by the territorial and federal governments. Our goal is to make decisions that will benefit the north for all residents and for future generations. I have some additional comments on today's proceedings that I have -- I hope will help make sure everything goes smoothly.

We have limited time, and the Review Board wants to hear what everyone has to say. Please note that there is an agenda for the hearing which is available at the door. I ask that everyone respect the time allotted for presentation and questions and use their time effectively.

The Review Board will be producing an official transcript of this hearing. This transcript will be available through our website and the public
Parties should be aware that they will be invited to ask questions in turn after each presentation. The order of questions will follow the list of parties shown on the last page of the agenda. After parties' questions I will invite questions of staff, counsel, experts, and members of the public. Please address all questions to the Chair.

Canadian Zinc will give their presentation first. After they have given their presentation we have a schedule, a generous amount of time to allow the participants to ask questions.

The order of questionings after each presentation will be as follows: The Government of Northwest Territories, INAC, DFO, Nahanni Butte Dene Band, Parks Canada, Dehcho First Nation, Environment Canada, Natural Resources Canada, Transport Canada, Liidlii Kue First Nation, Canadian Zinc Corporation, members of the public, and the Review Board and staff and counsel and technical advisors.

Anyone here today is welcome to speak or ask questions during the designated period for public questions. Please identify yourself to one (1) of our staff so they can help you. Questions may be asked with a microphone so that everyone can hear and the
transcribers can properly record your name as well.

We have simultaneous translation in the language on your headsets. You can hear English on -- I believe, on Channel 1. And the Dene language is on Channel 2. I ask that you speak slowly and clearly for the interpreters. And so, with that, I'm going to ask Canadian Zinc to come up and to start their presentation.

With that, mahsi. I'll turn it over to Canadian Zinc.

(BRIEF PAUSE)

PRESENTATION BY CANADIAN ZINC:

MR. ALAN TAYLOR: Hello. Hello. Yeah. Thank you, Mr. Chair. Thank you, Chief Antoine and Council and the LKFN for hosting this event, and the Grand Chief also for attending.

And with the timetable in mind, I'm going to go through a few slides fairly quick here. But I thought we'd concentrate on the technicalities which are upcoming more so than the overview.

(BRIEF PAUSE)

MR. ALAN TAYLOR: The Prairie Creek mine,
it's a very unique situation here because it's an
environmental assessment for a mine that already exists
and that had been fully permitted in 1980.

It has 90 percent of its infrastructure intact, and we're proposing not to re-establish
operations since it never actually produced, but to open
up operations with enhanced environmental mitigation of
today's compliance.

The waters at Prairie Creek have flowed
for a very long time indeed prior to any development
onsite. And one (1) of the ways that exploration takes
place is that we sample the waters to look for anomalous
metals. And there are anomalous metals coming out of
Harrison Creek here.

And while we don't have any database in
hand for -- to -- to document that this was the case
prior to any of the infrastructure being developed, we
can look on a regional basis and see other metal
anomalies in streams very similar.

This is an overview of the site itself.
Prairie Creek is running north to south. Harrison Creek
that we referred to runs into Prairie Creek just down
site of -- of the -- most of the complex.

We'll be referring to this pond. We -- we
refer to it now as a water storage pond, originally a
tailings pond facility. No tails were put in there because the mine never actually produced.

We also talk about a catchment pond. The catchment pond is downstream of all the mine infrastructure and it's the last catchment prior to release into Harrison Creek and into Prairie Creek.

So before CZN came in, the mine water was discharging for over thirty (30) years from the adit. And even prior to the development of the tunnels it was discharging through subterranean connections.

But when Cadillac set up the mine they brought in a number of reagents, such as 40 tonnes of cyanide, PCB waste, and large scattered waste oil inventory, along with rapid construction of some -- some parts of the road which weren't armoured enough to protect it from the time.

In addition, they did not have a lot of Fir -- engagement with First Nations, and we certainly, when we took over, aimed to change that.

So what have we done since? We've more than doubled the -- the mineral resource at Prairie Creek. We have an application, an EA, here now which is on the basis of a ten (10) to fourteen (14) year mine life based on our measured and indicated resources, which are in more detail than any other of the defined
resources.

So this is what we're basing our operations application on. And in addition to that, we have an equal amount of resources that are -- that are inferred, and they -- they need to be further defined, but it shows you that it could easily double the longevity of this mine site.

And, furthermore, we're actively exploring right now at this moment with two (2) drills further resources outside that. So this is a long-life mine. And water is now being treated at site to -- to remove the zinc out of -- out of the water coming out of the portal which has been coming out untreated prior to us getting a water licence. We've removed all the cyanide and PCBs and re-established parts of the road and armoured them properly. And we continue to have good direct relations with the First Nations.

In addition to that, throughout the years we have initiated much education, training, and employment throughout the region and onsite to support our exploration and development programs.

But what's it all about? Well, it's what's in the ground actually, and this is the lower level portal where the waters come out and have come out for thirty (30) years, and this is where we treat the
waters before releasing them.

But without what's in the ground, none of us would be here. And this is what's in the ground, it's a very high grade lead, zinc, silver vein and you can see -- it's hard to see on this photo, but it's about 4 metres across and it's a fault-type structure, and it -- it continues on for kilometres in the property. And we've drilled holes and we have also these tunnels which most -- most proposed mines do not have to define this resource.

And we're very confident of its integrity here. And we have it ready to operate on 500 tonnes right now. And what this also -- mineralization also has created, it's in a fault zone which is a conduction -- conductor of -- of a significant amount of groundwater, and we'll get into that later.

And that groundwater, of course, has been going thr -- coursing through this system ever since it was formed. The operation we propose is very similar to what was proposed in Cadillac days in 1980. It's a whole -- 100 -- a 100 percent underground operation and supported by an existing three (3) levels and a mill concentrator complex, a tank farm, a -- fully engineered workshops, administration building, and accommodation complex.
So Cadillac proposed putting their tails and the -- and the tails represent the waste products from our concentrate mill. They were -- they were proposing to put it in the tailings facility, which the excavated at the north end of the site. But our proposal, due to the legacy issues of tailings ponds upon closure, to avoid that problem, we are proposing to put all our waste tails back underground into the voids that we have mined out.

And in addition, we have enhanced the mill through dense media separation. And what that means is it separates the heavy minerals from the light minerals and we get rid of our waste rock before we have to mill it. And that waste rock, part of it will go up into a new waste rock pile facility on Harrison Creek, off of the Prairie Creek flood plain.

And we're also proposing a water recycle and treatment, the existing tailings pond to be conve -- converted into a water storage pond and -- and the mineral concentrates we'll be shipping out are zinc and lead, and they'll be in bags. And the bags are -- are to eliminate any contamination issues.

And we have a low risk closure plan because of some of the previous proposed operations such as the backfill plant, and there -- there won't be any
tailings on surface, and we'll get into that a bit later. And we continue to have First Nations partnerships and benefits. Just last week we announced the IBA here and we had a previous IBA announcement with Nahanni Butte in January this year.

This is the way the site looks today, which is very similar to what it looked like when it shut down in 1980. The tailings pond and -- and accommodation facilities. Prairie Creek Mine site is protected by a berm system that was installed in 1980 to '82, which protects the mine site from any flood events in Prairie Creek. And the timeframe that we've inhabited the site, we've had a number of significant flood events and the mine site has survived those without any significant problems.

Unfortunately, we've looked at alternative energy sources, but we are strapped with diesel at this time, diesel generation and that'll be supported by our -- our tank farm, which has the capacity to store around 8 million litres of diesel, and that's -- that's a sufficient amount of diesel to run the mine for one (1) year.

The tank farm is fully engineered, enclosed by a closed berm system. And we have regular checks with tank engineers to ensure that it's compliant.
At this time we only utilize one (1) tank. The -- these three (3) tanks are empty.

I referred to the catchment pond earlier.

This is the last catchment that's available onsite to catch any possible spills onsite with a controlled release so that this can be shut off if there's any spills and -- and any spills could be cleaned up before they enter the environment. And this pond will be utilized in our proposed water scheme too.

Geological resources, they're big numbers, 12 million tonnes of -- of zinc, lead, and silver and copper. 60 million ounces of silver. Billions of pounds of lead and zinc. It's a very, very rich ore body and has been -- had a -- had a site facility set up for many years. It's an opportunity waiting to happen here.

The present mine entrances will be utilized in the -- in the proposed operations to mine out the areas above the mill level, but we need to put additional portal to mine at depth in the ore body.

We're proposing to mine at rates of 1,300 tonnes per day and milling at one thousand (1,000). And we -- we get rid of the three hundred (300) because of our dense media separation before the -- before it goes into the mill. We're able to reject that. And all -- and with that, we enhance the amount of metal that goes
into the mill without actually having to expand the mill. It's a basic crush and grinding flotation process, and we will be adding the dense media separation plant and a backfill plant for the paste backfill and producing zi -- zinc and lead concentrates.

This is a long section. If you -- if you cut an -- an angle through the mine along the workings you see the three (3) levels of workings here. And this pink area is the defined resource which has in the order the 12 million tonnes. But we're basing this application just on our measure indicated, which are just in this area here, where we have the most detail and closest to the mine.

The mine complex is here. The -- the way you'd mine is everything is dropped down to here, this level is tracked and taken out to the mill. Probably some people can't see this, but basically the -- the mi -- the proposed mining operation, these are the existing three (3) levels here which would be dropped down, taken out. And this is the additional at-depth ramp that we'd need to put in to mine further at depth on the vein, and it continues out to the north here.

Mining would be by cut and fill methods mainly, partly with some -- some shrinkage. And for the cut and fill we'd be bringing in our backfill. And when
we mine up into the stopes we'd be filling it with backfill and then continuing to ramp up our equipment to mine further up the stope. So you're -- so you're driving on your waste -- waste material.

The -- this is the present ore stockpile that we're proposing. It's a small twenty thousand (20,000) temporary ore stockpile located at the portal.

This is a schematic of the existing mill. The existing mill is in -- oops, sorry. The existing mill is in black. We'd be adding on and -- but re -- replacing the main things would be in the power plant. We have new generators making them more fuel efficient. We'd be adding on a dense media plant on this -- on the crushing circuit side, along with a paste plant. And on the other side, on the out -- outfeed side of the concentrates we'd be adding on a bagging plant and concentrate storage sheds.

But, as I said before, the basic process in the mill remains what it was set up for. In the site itself, this is the mill complex here with the additions of the plants and the -- and the storage sheds. We'd be replacing some of the accommodation complexes by a double-storey modular unit up against our admin building, adding on a temporary ore storage, and replacing our existing polishing pond with ore storage.
Inside the mill it's about 90 percent complete. This is the grinding and flotation circuit. And it wouldn't take much to bring back life to this mill. We'd be upgrading the mill regarding electrics and adding in the paste backfill plants. Replacing the main generators with units such as this, much more fuel efficient. And of course, new incinerators. We have a incinerator on camp right now. Never had a wildlife problem, we have good waste control management, and we'd continue to do that with an upgraded incinerator.

And our metallurgical summary, a process summary per tonne, how can we put all that material back underground, well, basically we're -- we're shipping out 20 -- 26 percent of that material in the form of concentrates and we're producing 24 percent as a dense media separation reject. And we produce 50 percent of -- of the per tonne of rock as waste flotation tails.

So this -- this is only a per tonne of -- of -- of rock mined, and so we can contemplate putting this material back underground to replace the voids we mined out. And, in addition, we have our waste rock development and existing stoppage (phonetic) voids. It's a unique situation that most mines do not have the opportunity to -- to contemplate. And paste backfill has been around for twenty (20) years and it's a -- it's a
proven technology.

So with that, I'll ask my colleague Dave Harpley to take over.

(BRIEF PAUSE)

MR. DAVID HARPLEY: Good morning. In the interest of time I'm going to skip through a little more quickly on material that we covered yesterday and then slow down on the bits that we didn't cover yesterday, particularly on the -- the water management side of things and the water quality.

Alan has given you a quick overview of the -- the Waste Management Plan, but it -- it is essentially all the float tails go underground, approximately half of the DMS rock. The remainder of the DMS rock go to the waste rock pile and also go -- that goes to the waste rock pile is a development rock.

The cornerstone of the Water Management Plan is the conversion of the large pond, which was intended for tailings disposal to a water storage plan. This will allow us to store water and recycle to the mill and also send water to the water treatment plant on a controlled basis. The large pond will also include up to 50,000 tonnes of tailings on the startup period before
stopes are available underground for backfill.

This is the location of where we propose
to put the waste rock pile. There is a draw off Harrison
Creek. This is Harrison Creek here and this is the draw.
It's a -- a nice location for waste rock. There is
usually no water flow in this draw here. There will be a
collection pond at the toe of the pile to collect seepage
and that water will be fed into the -- the water
management system for treatment. And you can also see
that there is plenty of room at the back here for
expansion if we need to.

One (1) thing we didn't cover yesterday is
we propose to have a solid waste facility and it would be
within the footprint of the -- the waste rock pile, the
intention being that on closure the facility would be
buried within the pile and covered within the cap placed
on the pile itself.

The waste -- the solid waste facility will
compose of a -- a lined cell so that we're prepared to
manage any soil or material contaminated with
hydrocarbons. We will store the slew -- sewage sludge
from the sewage treatment plant, and this material would
be useful as a soil amendment for closure.

And we'll also have our incinerator up
here to burn camp waste on a daily basis and another spot
here for some of the inert material waste from the facility.

So this is more or less what the site -- that we expect the site to look like when it's been redeveloped. We still have the tank farm here, and the mill, there are the additions to the mill that Alan mentioned. In addition, we would have a large shed here to store the concentrates before the -- the winter season. And then there'll be storage facilities for reagents.

All this here is already in existence.

There'll be a new accommodation block in here, and then the reconfigured water storage pond with two (2) cells and a divider in-between.

Essentially, this is the Water Management Plan. It's a schematic. And stockpiles and mine water here feed into this cell here, Cell B, and the process water feeds into Cell A in the water storage pond. And then both cells feed water back to the process plant, and both cells feed water to the treatment plant, which discharges to the catchment pond and, along with site runoff, discharges to Prairie Creek.

The reconfigured water storage pond will look something like this. When it was originally built there was some instability on the back slope here. The
solution our engineers have developed consists of three (3) components. One (1) component is an apron here of fill to be placed along the base, and then a buttress here of fill along the back slope. And then the third component is a minimum water level given that the water in the pond itself acts as a buttress.

I mentioned using the water from the pond in the process. What I didn't mention either yesterday or -- or before until now is that part of that process is that the water -- the process water needs to be aged in the pond. The reason being that when the process water comes out of the mill it still contains residues from the flotation process. And those residues at different stages of flotation force different concentrates to either float or sink.

So you can understand that if those residues go back into the mill they will interfere with the separation, going through the steps of concentrate separation. So it is important that the process water stay in the pond for several months so that those residues can degrade because they're primarily organic. And then we can recycle the water and it won't interfere with the process.

At this point, we have conservatively assumed that we can recycle 65 percent mill water, 35
percent mine water as our feed to the mill. And I say "conservative" because our -- our process engineers tell us that we could likely recycle a little more than the 65 percent figure, but we don't want to at this point be too aggressive in that assumption.

The -- the essential reason we limit ourselves at this point to 65 percent is principally to avoid the long-term buildup of major ions in the water, things like sulphate, and particularly sodium, which could at some point interfere with the -- the mill process separation.

That doesn't mean that periodically we couldn't increase this number to 70, 80, even a hundred percent on a short-term basis because it's the long-term buildup we're concerned about, not the short-term. We could periodically put 100 percent process water into the mill feed provided we come back to the -- the steady situation on a more longer-term basis so we don't end up influencing the quality of the water that's going into the process. But this has significance in terms of contingencies, which I'll get to in a minute.

The water treatment for discharge, we will have two (2) basic waters that we will treat for discharge. One (1) is the mine water and the other is the process water. They have -- they have different
chemical signatures and they also have different flow 
rates.

The process water has a slightly different 
metal signature in it and higher concentrations of 
metals, so it requires a more sophisticated treatment 
process which consists of, firstly, pH reduction using 
acid. And then we add sodium sulfide in order to 
precipitate the metals as particulate, followed by lyme 
addition to bring the pH back up to neutral, and then as 
a clari -- clarification step, the secondary step, to 
remove the -- the fine material.

The mine water is a fairly simple process 
used pretty much everywhere, lyme addition to raise pH to 
approximately nine (9) or a little above, and precipitate 
metals as a sludge, and followed by clarification.

The -- the important thing to note is that 
the process water stream, the flow rate stays much the 
same. At least the process water flow rate going into 
the mill and coming out of the mill stays constant. So 
it's a known quantity.

The mine water is a little difficult, more 
difficult because, at this point in time, it is a little 
more difficult to predict exactly how much mine water 
we're going to get out of the mine. And we'll get into 
that in a minute.
We do plan to treat mine water year round.

We will treat less in winter, but we have to treat mine water at this point year round because the flows, we expect, will be sufficient enough that we cannot store it indefinitely, or at least for an extended period.

We can have a little better plan for process water. At this point, we -- we do not plan to treat process water in February and March. And, again, we will also substantially reduce the quantity of water, process water that we discharge in the other winter months.

The contingencies we have available for upsets or things going wrong. First of all, the main contingency is the available pond storage. It is a substantial structure with a substantial volume, so that's the first obvious place to keep water for a period of time to fix any upset.

As I -- as I mentioned, we can also in the short-term increase the proportion of process water going through to recycle back to the mill. And this is important because if we recycle more process water, then we can manage mine water more -- more in a -- in a better way.

If we needed to we could in fact stop the treatment of process water altogether and -- and use the
process water treatment circuit to treat mine water as well because the process water circuit includes lyme treatment just like the mine water circuit does.

We will also have redundancies in terms of pumps and power supply, a backup power supply for the treatment plant, so the down time for that operation would be in a manner of a few hours.

And if really, you know, we came to a crunch in terms of storage and everything else, there's still a freeboard in the storage pond that typically you would not to use, but in an emergency situation it's available. And, you know, a 1 metre freeboard on a very large pond translates into a significant quantity of water.

So this is one (1) of the significant variables that we had to contend with in terms of development of the overall water management strategy. What this shows you is that depending on what the mine inflow, perhaps is a better way to describe it, scenario is, here are the scenarios here on the left-hand side.

You can see that the numbers of predicted inflow in litres per second vary quite substantially depending on what the scenario is. We made our best estimate of what we think it is, and you can see that it peaks in the summer and it drops down in the winter
months. And we know that will occur because it's what we
see currently onsite.

There is a fairly close relationship
between precipitation and the open water season, and then
infiltration to the mine and flows coming out of the
adit. However, there's a possibility that the flows
could be less than we've estimated, and there's also
obviously a possibility that the flows could be higher
than we've estimated, so we've put some brackets on
these.

And, in addition, we were asked by
regulators to consider what would happen if there was a
connection between the mine and Prairie Creek. We argued
that we did not think there is a connection because
there's no evidence that there's a connection there.
There's no mineralization in the -- the valley area.
It's been drilled from an exploration standpoint, and
there is no mineralization there.

And in addition to that the drilling would
indicate that there's no structure for any movement of
groundwater, which probably explains why there's no
mineralization there.

So despite the fact that we don't think
the structure exists in the valley, we still went ahead
and assumed like a worst case, what if there was a
structure and there was a connection, and -- and this is
the answer that our consultant came up with in terms of
the flows on a monthly basis.

So what the consultant also did is, based
on his experience, tried to best estimate what he felt
was the probability of these scenarios occurring. And
you can see by far and away he's -- he's most confident
about the best estimate here, 70 percent. There is a
possibility of being -- it being a little higher or
lower, and a very small probability of it being this
extreme situation.

So that's the one (1) of two (2)
significant variables in terms of water management. The
first one (1) is the mine water. The second one (1) is
what the creek is doing.

This is a hydrograph of Prairie Creek
measured at the flow station by Water Survey of Canada
just upstream from the mine. And you'll notice that if
we look at the shape of the curves here, the mean curve
is the middle one (1) here, the dark one (1), and you can
see as you might expect, it is very low here in the
winter period, and then it increases substantially
through freshet into the summer period and then it
declines off again. And there are certainly monthly lows
on record and that is the -- the lower shape here. And
you can see that it's also significantly lower in the wintertime. And there's also peaks and flow, this shape here.

So the reason I think this is very important to bear in mind is our management strategy and our distance -- discharge strategy is inextricably tied to this hydrograph. What we intend to do as best we can is manage our treatment and discharge so that we mirror as closely as possible this shape. The reason being that if we do that then we try our best to maintain the resulting concentration in Prairie Creek, and by doing that minimize the potential for any impacts.

This also has a great significance in terms of how we regulate the discharge. You might imagine if we had limits on our discharge that were based only on concentration, those concentrations would likely be based on these very low flows here at the bottom of the hydrograph. And what that means is it basically puts this hydrograph off limits for our discharge and removes an awful lot of flexibility from the operation in terms of putting more water out there, which would not exceed objectives.

So we did water balances for the water storage pond based on those four (4) mine flow scenarios, and it gets a little confusing until you've really worked
with the information for a little bit of time, but to try
and crystallize it we've used three (3) ranges of creek
flow: minimum flow, mean flow, and maximum flow in terms
of the creek.

And then for the -- the water balance on
the site we've used the -- the four (4) mine inflow
scenarios, which is the low, the best, the high, and the
extreme. So I'll try and stick to those words so we
avoid the confusion between mine flow and creek flow.

Well, this is the first water balance for
the water storage pond and -- and it's based on the low
mine flows, and you can see here there are a number of
graphs. The -- the pink graph is our predicted mine
inflow that we looked at.

And the -- this kind of truncated shape
here is the water from Cell B, which is the mine water
cell being sent to treatment. And then this shape here,
the blue, is the process water that's from Cell A that's
sent to treatment. So you can see that these two (2)
shapes here mirror the inflow of the mine water and also
that hydrograph we were just looking at.

There are some constants in the water
balance. There's a certain amount of water that we lose
to moisture in the concentrates and also in the waste,
the backfill. And up here we have the proportion of
water that's being recycled back into the mill.

So that -- that's kind of the -- the pattern of how things go and in the wintertime here the treatment ramps down and then the water going into storage is increasing because the mine water is still flowing in underground.

So you'll notice the scale here of flows on the left-hand side, zero to -- to fifty (50) and you'll notice as we go through the scenarios that this scale is going to increase in terms of flow, and the shapes are going to start to change a little bit. We still have the primary shape of the inflows and we still have the water treatment, but the fixed amounts are decreasing in -- in -- in location on the graph here because the scale is changing.

When we go to the high mine flows, similar pattern, the scale has changed again. Now we're seeing that the mine water treatment is almost the same as the mine inflow. And if we get to the extreme situation you can see that it's almost identical here, and then the other flows are down on the bottom. So it really is dominated this one (1) by the mine water.

As far as the discharge side of it goes, everything will go to the catchment pond as it does currently. We do plan to line the pond so that we're not
concerned about losses in direct discharge.

The discharge strategy we've elected to use is a double pipe system an ex -- in an exfiltration trench which will discharge to Prairie Creek directly from the catchment pond, not via Harrison Creek as it does at present.

The -- the trench, the benefit of the trench is it mixes with the creek water very quickly so that the size of the initial dilution zone is -- is quite small, and we've assumed 100 metres, primarily for monitoring of receiving water quality. The mixing actually occurs predominantly well before 100 metres, or would. This is the -- kind of distance where the vast majority of mixing would be expected and that range covers the -- the -- the different situations, seasonal situations in the creek between open-water season and ice-covered season.

In addition, the -- the trench does not go all the way across the -- the creek channel. We leave part of the channel open for fish -- fish passage just in case fish don't find swimming over the trench agreeable.

So what does it look like? I apologize, the quality here is not too great, but here's Prairie Creek and here's our catchment pond. So the -- the trench will come out of the catchment pond rough --
roughly here just upstream of Harrison Creek. And here is the -- the pipe extending underneath the channel partway in this location. One (1) pipe is a little longer than the other. The plan would be that we would use the -- the shorter pipe during winter when the width of the channel is narrower so that we maintain that passage zone.

A little better picture shows you a little -- a little more clearly where the pipe would be and where the pipe extends buried under the creek bed. Design-wise the pipe comes underneath the existing berm of the catchment pond and then it has these several slots here. The idea of these slots is that we get an even discharge of the effluent and the effluent will move through this course cobble layer, and up into the bed of the creek.

And then the -- the blended -- primarily the mixing is going to occur right in this zone here, and the hundred metre location is right here where there's a natural riffle, and this is a good location for the -- the first monitoring of water quality for compliance and reporting as part of the SNP Program.

And then the creek continues. Galena (phonetic) Creek is right here. And, in fact, the discovery outcrop for the vein is in the cliff here just
upstream of Galena Creek. And the creek continues. Quartz (phonetic) Creek is down here. And then the -- the creek takes a bend and narrows further down -- downstream.

Part of our control on the water quality of the discharge is that we've done toxicity testing. We -- we know that the treated process water is -- is -- has some toxicity in it, whereas the mine water is pretty much nontoxic across the board, which is why we can plan to treat mine water and discharge it year round.

But to -- to put some safeguards on the process water and to avoid the possibility of acute toxicity in the discharge we can ensure that the process water never exceeds more than 20 percent of the discharge, and that avoids the -- the acute toxicity potential.

As I've mentioned, the trench ensures the apid -- a rapid mixing, so the zone of chronic toxicity in the creek is -- is very small. In determining our water management strategy and ensuring that we don't have significant effects we went through a process of developing water quality objectives.

And the steps we took were to -- to start with our database on upstream water quality. And this is a database that is a combination of different sources.
There's our own sampling that we conducted. A large part of the database is in fact from Environment Canada, a program that they've had underway since the early part of the last decade, at least on Prairie Creek. And then some other researchers have also done sampling in the catchment, so there's a number of different contributors to the -- to the database.

Using that information, we set about determining what the natural background in the system was and what the variability of that background was. And so what this -- this is what it means when it talks about the -- the computed mean for each parameter in the -- in the background, and also the range of variation in background is based on a statistical two (2) standard deviations from the mean. And -- and this is a documented approach to determine the background var -- range of variation.

So in our process of looking for suitable objectives, we started here, and we basically looked at our first estimates of water quality predictions in our discharge. And those first estimates indicated that there was some parameters that would stay within the background range. And for those parameters we basically said, Okay, that -- that's protective, we don't need to go any further.
The next step was to consider those parameters that could not stay within the natural background range. Then the next step was to consider what the effects might be for the concentrations, the parameters of the concentrations that would be outside of the background range. And for that step we looked at the toxicity database. And for some parameters there's a very large toxicity database, and for others, not so much. So where the parameters exceeded this mean plus two (2) standard deviations we went to the toxicity reference.

Before I get into kind of the details of what we came up with as objectives for all parameters, this is a summary of the parameters and the assumed objective values that we took and also how we derived them. And you can see that on this chart iron, selenium, and TDS are based on the -- the background approach. It's called here RCA, and that stands for reference condition approach.

The other parameters were based on toxicity information, and that toxicity inma -- information also included information for species that we know to be present in the system. So these are site specific objectives for our location.

A lot -- for a number of the parameters a
The majority of the toxicity information was present in CCME factsheet material. That's typically where all the toxicity information is assimilated and collected. It's not the only place, but it's certainly one of the main places.

So let's look at some of the individual parameters. This is antimony and you'll notice here the toxicity concentrations for different species, and with different peaks of concentration here on the left.

And there is no CCME guideline for antimony. There is an Ontario guideline, and that's -- that's this concentration here. This bar here is a concentration of 580 micrograms per litre. And Ontario picked the guideline of twenty (20) as being protective, so that's -- you can do the math. That's twenty-nine (29) times lower. The -- we looked at the Ontario guideline, which is the -- the twenty (20) and that's what we assumed for the time -- for the present time.

This is arsenic and, again, here are all our species in terms of toxicity information. And here are some of our northern species, at least for the fish, and invertebrates and vertebrates here, these symbols. And we have some plant species down here. You can see on the bottom here, the concentration. The lowest concentration is ten (10). The concentration we assumed
as an objective was five (5), so it's off the chart here.

This is the cadmium. Here again, we have our northern species. Here's bull trout, we do have some invertebrates down here at this concentration. Cadmium, the -- the concentration we assumed is in this range here. You can see it's close to these numbers.

But there's another factor to consider here, and that is cadmium is one (1) of the parameters that is -- toxicity is sensitive to water hardeners. Cadmium, copper and zinc's toxicity is hardness dependent. These tests are conducted based on fairly low hardness waters, which means the toxicity is effectively higher for the given concentration.

So because we have hard waters at Prairie Creek, the same concentrations are less toxic. This is the copper, and again we have our peaks and the northern species. We have two (2) arctic grayling bars in here. You can see that the one (1) bar is actually lower than the CCME guideline.

It's the same situation as for cadmium. This test is based on a low hardness water. And if you do a hardness calculation using the CCME numbers, this is where the CCME guideline would be. So because this number is lower doesn't mean that this is more toxic, this -- it's just that the hardness assumptions are
different between -- between the two.

And here's lead, there's arctic grayling there and CCME. So a -- a number of these are quite similar. That's the one for zinc and that's the ammonia one.

So I want to try an illustrate what those objectives mean in terms of our discharge. Here's the antimony one, this is the objective we assumed, it's the 20 micrograms. This is shown in milligrams, that's why the number is different.

And what these charts show is the computed upstream concentration is this black diamond down on the bottom here. And then the computed RCA number, the green one here, is the background range, it's also down there. It's very close to the background, the mean, for antimony. And then this orange diamond here is our highest predicted concentration in our discharge.

And you can see that we can't get down to the background range for this parameter. We can get fairly close, but we can't get down to it. But despite that, we're still a long ways from this objective up here, which itself is a long ways below any established toxicity information.

So this is the chart for arsenic. It's a little similar, except that our predicted concentration
is a little bit below the green, the background range, so
we're just within the background range here and, again, a
long way from the objective.

A similar situation with cadmium. In this
case, we're right on top of the background range.
Copper, we're well within the background range here. And
lead, we're on top of the -- the background range. So
you can see it -- the situation differs depending on
which parameter we consider. Zinc, we're well within the
range, and ammonia just above.

I should point out that this highest
predicted concentration is based on the low, the best,
and the high mine flows. We did not include the extreme
mine flows in this concentration prediction because we
felt that it would bias the numbers unacceptably.

There -- the main reason for that is the
assumptions that we've made for treated water quality and
the water quality of runoff and other things that
contribute to the discharge are really based on what we
see onsite and expect to happen during the operation
under normal circumstances. If we had extreme mine
flows, that would indicate that we have a connection to
Prairie Creek. And in that case, the quality of the mine
water will be much better than we expect to find during
normal operations. So we don't think it's appropriate to
continue our assumption on water quality for mine water on that basis.

As for sulfate, we're close to the range but -- background range but just above it. Mercury is a parameter that is a little -- causes a little more cause for concern. We do know that the background concentration in Prairie Creek is -- is very low. It's so low that most times, during normal sampling, it's undetectable.

We have just started to sample with -- with low detection limits to determine just how low the concentration is. We also know that the concentration of -- in -- in mine water is very low. It's also non-detectable after treatment.

There is a little bit of mercury in the process water, but most of that is actually in the suspended form. It's in sediment form. Only 15 percent of it is dissolved. The reason that is important is that one (1) of the difficulties we have with simulating water treatment in the laboratory and trying to mirror the real world situation is it's very hard to simulate the effect of sediment removal in the laboratory because it's a -- it's a physical process and you really need a large tank to simulate it accurately. So provided we remove the sediment effectively as we expect to do, then we would be
left with primarily the dissolved component.

We expect the water quality discharge for mercury to be pretty much at background levels once we've actually determined what the true background is. So we don't expect that there will be actually a significant discharge of mercury and would not lead to any accumulation in fish and other species.

Currently, this is what the mercury chart looks like. You can see that the background range, here's the mean, and here's the mean plus two (2) standard deviations, and the objective is sitting real close to it. However, because of the non-detects, there are problems with the calculation of these two (2) numbers. And, right now, this is what our highest predicted concentration is.

So now it gets kind of complicated, and I don't usually want to throw a lot of numbers into a presentation because I know it's hard to follow, but I felt it was important to try and consolidate all the predictions to give you a flavour of -- of what we were finding.

And, you know, I won't dwell too much on the precise numbers and the detail, but a couple of things that I do want to point out. Here, on the left-hand side is our computed upstream water quality in
Prairie Creek. These numbers here are our objectives that we assumed. This is the water quality that most of the predictions are based on, treated water quality for the mine water and the process water. And you can see that there are some differences. By and large, the process water effluent has high numbers. That's not always the case. For example, for ammonia obviously the mine water's a little higher.

And then here are our predictions for the low to high mine flow scenarios, and then the predictions for mean creek flows, low creek flows, and high creek flows. So for each flow situation we've got on here the low concentration for these scenarios and then the high concentration for these scenarios. And down at the bottom here we're saying if any of the numbers are bold, then they exceed these objectives. And you can see that none of them do exceed the objectives. None of the numbers here are bold. So our actual predictions of discharge based on our management plan keeps us comfortably within these set of -- set of objectives.

Now, if we go to kind of an iteration of that, we've got the same data on here except that we've added in a column here. And this is the situation. If we include all those background range numbers, those RCA numbers I mentioned, the mean plus two (2) standard
deviations, these are these numbers here, now what we're saying is the bold numbers are those that exceed RCA or exceed the background range as we currently estimate it.

And you can see that there are a few parameters here that are in bold. There's arsenic here, high concentration during low creek flow. There is antimony here which actually exceeds in most creek flows. Even the low concentrations are above the mean plus two (2) standard deviations. And there's ammonia down here as well. So what this tells you is that to try and use the background range for something like antimony just doesn't work because we exceed it across the board. But -- and -- and for arsenic we exceed it in a situation when the flow in the creek is very low.

That's if we don't do anything else with our management strategy. We have the opportunity still to influence this number because this number here is based on, primarily, the quality of treated process water. So if we have low creek flow, abnormally low, and provided we have the ability to measure the creek flow continuously, we can make an additional management decision and reduce the amount of process water that's being discharged temporarily and avoid the exceedance from occurring. There's nothing we can do with this antimony situation because the limit, if it was based on
background, is so low.

But the other thing I want to point out on this slide here is that here in this column we've got downstream water quality based on the current record, and this is based on a similar amount of data that the upstream is based on. This -- this information is primarily based on the Environment Canada database. And what you can notice here is that arsenic and antimony and, in fact, total phosphorus in this area already exceed the background range.

So the question is: Why is that? Part of the question might be -- certainly one (1) option is that the historical discharge from the mine has released water and has influenced these concentrations. Another con -- solution or potential is that we know that the area is naturally mineralized. It's quite conceivable that the natural mineralization which extends across the creek and is downstream of the mine contributes runoff and -- into the naturally mineralized waters and is responsible for these numbers.

But whatever it is, we do know that the downstream currently is different from the upstream. And part of the logic for using RCA is that if you can stay within the background range, then you can't possibly have an effect on what lives in the creek because they're
already used to that range. Well, the point is then that
whatever's in the creek downstream now is already used to
this.

Another step in our management that we're
considering, some of this is perhaps premature because it
comes in the -- the permitting stage, but we did want to
consider the effect of effluent quality criteria from the
perspective that it's one (1) thing to predict what the
actual discharge is going to be, but it's another thing
to consider how you regulate that discharge.

And the regulation becomes quite difficult
when you're managing a discharge that you don't know what
your bounds are in terms of the amount of water you're
going to discharge. And because you don't know the
amount of mine water, you don't know for sure what the
concentration of that discharge is going to be.

And, also, you don't know in advance, or
at least not within actual before -- with actual surety,
you don't know what the flow in the creek is going to be.
So that -- that poses some real challenges for setting
effective effluent quality criteria that protect the
environment and ensure you meet objectives but, at the
same time, give the operation the flexibility to operate
and to discharge more water when the creek has more flow
in it.
So the typical way of setting these criteria, or EQC as they're called, is to set concentrations for grab and average samples to count the discharge. We feel that these numbers should be based on the highest possible flows in the creek. The reason we say that is because we want to maintain the flexibility to discharge when we have high creek flows.

But, at the same time, we understand that we can't be allowed to discharge at that quality in all creek flow situations because then we would have exceedances of objectives during mean flows and minimum flows. So we need an additional regulatory step, and the step we've proposed is to use load limits, which are applicable for all creek flows and are intended to ensure that we never exceed the objectives.

So what does that mean practically, these load limits? How -- how can we do this? How can it be applied and give regulatory confidence? This is described actually, or at least our proposal and how we do this is described quite nicely in the technical report by Environment Canada on page 11. And they go through the assumptions that are given here and -- and it's pretty much accurate. There's one (1) element of it that we -- we might modify, but, essentially, it's got the right intent of what we're trying to do here.
So what we're saying is that we need to
know what the creek flow is all the time. That's the
only way we can determine what load we can discharge to
stay within objectives. So we're proposing to monitor
the creek flow continuously, to re-establish the flow
station on the creek, and then to relay that information
to the treatment plant and to anywhere else, for that
matter, because it's all based on telemetry, digital. So
we always know what the creek is doing.

Then we have predetermined upstream
concentrations based on our database, although this could
be reviewed periodically. And then we have predetermined
objective concentrations. And then, effectively, the
difference between the objective and the upstream
concentration is the concentration multiplied by the
creek flow which determines how much load you can
discharge, the allowable load, if you like.

So then provided we know what the
allowable load is, which for the operator sitting in the
treatment plant is basically showing on his screen
because it's computed by the computer based on the creek
flow, then he knows he has to track the -- the volume of
the discharge from the site and also the concentration of
the discharge from the site. The flow readings will also
be on his screen because it'll be constantly monitored.
And then, so what he's really doing is he's monitoring the discharge concentration as you would with typical EQCs based on taking samples. So from an operational standpoint it's not complicated. It's fairly simple.

From a -- from a regulatory standpoint, if an inspector comes along, the differences for him really are as follows. He might come along. He would need to know what the creek flow is, so he would need to go to the computer or to the printout and -- and be -- and find out what the creek flow is at that particular point. He would need to go to the same location and find out what the flow of the discharge is.

So, basically, he's going to have two (2) numbers, the same as the operator does. And then he's going to go and take his sample, which he does currently. And then with those three (3) numbers he can, with this relationship, go back to his office, get the results from the lab, and then compute what the load was of the discharge, compare it to the calculated allowable load and compare the two (2).

So whereas before he's comparing discharge concentration versus allowable concentration, he's di -- he's comparing discharge load to allowable load. It's much the same. It's slightly more complicated, but it's not overly complicated.
THE CHAIRPERSON: David, I got a question for you, I guess, in terms of time. How much time do you figure you need to conclude your presentation because it's almost quarter to 11:00 now?

MR. DAVID HARPLEY: My colleague here is suggesting it might be a good time for a break. But to answer your question, I would estimate maybe ten (10), fifteen (15) minutes.

THE CHAIRPERSON: Okay, I'll give you fifteen (15) minutes to --

MR. DAVID HARPLEY: Okay.

THE CHAIRPERSON: -- to conclude your presentation. And we'll take a break after that.

MR. DAVID HARPLEY: I'm going to skip through a lot of this material quite quickly because we did cover it yesterday. But the -- the -- how we man -- plan to manage the operation, it'll be two hundred and twenty (220) people full-time, a hundred and ten (110) onsite at one (1) time on a rotation, two (2) mine and mill shifts, one (1) admin shift, three (3) weeks on, three (3) weeks off rotation by air. And then, in addition to that, there would be the -- the winter haul out of concentrates and haul in of supplies.

Concentrates would be going out in sealed 3 tonne bags. We will, I'm sure, cover the -- the dust
control side of things in questions so I won't go into that now. Essentially, the trucks are -- collect the -- the bags from a clean bay and the bags, which will be frozen at that point, will be taken out, initially early in the winter, to the first transfer station on the -- on the winter road. The -- the transfer facility is this kind of a structure. And you can see an example of the kind of bags we're talking about here.

Transportation. Here's our winter road. Here's the mine. And we go out -- proposing to go out here to the Liard Highway joining into Nahanni's access road in here. This solid line is the existing winter road and we're proposing some realignments in this location here in Silent Hills and also these two (2). The first transfer station is here, Tetcela, and then the second one is here, Liard.

We've made the realignments -- or proposing the realignments to -- to get out of wetlands, this was a request from Nahanni Butte. We're also avoiding Poljes features which was a request from Parks Canada. We've also been working hard to improve the road to reduce risk, reducing grades and tight turns. And we're also putting in some bridges on a couple of the creeks. And there are some additional things that we're working on. Speed limits will be part of the operation,
again, to manage risks and minimize the potential for accidents.

This is a -- kind of a conceptual view of what one (1) of the spans might look like over Sundog Creek. And here's the first proposed bypass, this is Poljes Creek. Here's the existing route and it currently bisects the Poljes. And here is sinkholes in this plateau up here, so the new route would avoid those features. This realignment we can't do because the slope is unstable, but what we are looking to do is to revise the switchbacks to make them safer.

Here's one (1) of the other alignments along the foothills of Silent Hills as opposed to through the valley. And here's another one along the front range to Nahanni Butte, as opposed to through the wetlands to the Liard Landing. This would be our ice bridge crossing near Nahanni Butte, tying into their logging road.

The road construction, the -- the plan is to -- basically to start from the west when -- because of the higher elevations temperatures would be lower and freezing should set in earlier. And so we're still using frozen ground. We would also be using a snow/water mix initially to firm up a frozen surface quicker.

And water sources, there's a couple of sources that we know we can rely on at this point, but
we'll be doing more work on that to confirm some of them and maybe to look for others.

Stream bank protection will be part of the construction and we expect that we'll need to use fill-in places for potential permafrost, but we have more investigation to do on the permafrost side of things.

But always the operation during construction and maintenance will be subject to inspection and careful control.

This is the overall use schedule proposed. It's in the -- the DAR, we covered it yesterday, I'm not gonna go through it again. But it's -- basically it's a start in early December to start moving the concentrates to the midway station, and then by middle of January to open the whole road and move out the concentrates all the way and then bring in supplies pre -- preferably well before March 31.

So a number of road management initiatives we'll intend to employ to minimize risks. Spill contingency is a significant consideration, particularly on the road. And again, we've come up with a number of strategies to -- to mineri -- to minimize the risks and to mitigate the impacts if, in fact, we do have a spill.

Access cro -- control is very important to Nahanni Butte because it's their territory basically.
And we're also keen on access control because it's going
to be a busy road when it's open and we want to minimize
the potential for accidents and -- and also people using
the -- the road to get into -- to do things that Nahanni
or others don't really want them to do. But it's a
public road, so we can -- only so much we can do. We can
try and deter public access but we can't prevent it.

This is the traffic at the Liard transfer
facility and the dates. I won't dwell on that one.

We have a fairly good database from the
Cadillac area on where wildlife was at the time and we've
since done more work to validate that information. But
essentially we're going to assume that we could find
wildlife on the road at any point and we've adopted a
mitigation strategy on that basis.

This is a list of the residual effects
that our consultant determined needed to be mitigated,
and these were largely addressed in the subsequent
management and monitoring plan that the consultant
developed. And then there are other plans that we
actually already have in place, but they'll be reviewed
and modified along with the -- the other initiatives to
mitigate wildlife issues.

Mine closure is obviously a very important
consideration. We've largely covered the main mine
closure aspects, the filling the mine to stop portal drainage covering the waste rock pile, monitoring the groundwater to confirm that our assumptions are correct, and then restoring the site.

Post-closure water quality I'm sure we'll get into. I won't dwell too much now, but basically we expect the majority of the groundwater to flow around the backfill as opposed to through it, and carried in the -- the full structure. And we've done predictions and all metals are within the objectives that we've determined, except for potent -- potentially zinc. But zinc we expect is going to be at or below pre-mine because there is a natural signature that would have been there before any mine operations. But, again, this will require post-closure monitoring to verify.

This is a similar chart to what I had before. Here's our upstream/downstream quality and here's the objectives in here. And, again, for the post-closure situation based on the objectives here we're not exceeding.

And this is what we hope the site to look like after closure, the same as it was before mining. And this is how it looks now.

And I was going to ask Wilbert to come up to run through these last couple of slides. In the
interest of times -- time, maybe I'll just quickly leave that up here. But essentially the economic benefits are -- there's a long list here of how we plan to provide benefits to the Community, the sharing of profits and provided training and trust funds and a number of other things. Because we obviously want to benefit from the mine, but we also want the Communities to benefit and we're trying hard to include them and their wishes in everything that we do.

We recognize that there could be negative social issues because of the development and so we're proposing a number of initiatives for the staff revolving around, you know, how to manage more money and how to stay healthy and protect the family. The Company has had a long history of sponsoring and putting on community events and we expect to continue that.

And, as Wilbert said yesterday, a large part of all this that we're talking about is about the youth, it's about opportunity. So, workshops for youth so they know that there are jobs here, they don't have to go and leave the region to get them.

And we also want to make sure that workers have the opportunity to do their traditional pursuits in the fall and perhaps other times, and we will work with government to try and bring forward programs for these
things and access money that can benefit the Community
and minimize the potential for social issues.

Thank you.

THE CHAIRPERSON: Thank you, David

Harpley and Canadian Zinc for your presentation. It's
now five (5) to 11:00, so we'll take a fifteen (15)
minute break. We'll come back at ten (10) after 11:00.
Then we'll go on to the next presenter with Liidlii Kue
First Nations.

Oh, sorry -- oh, sorry. Yes, we have
questions after that. Sorry about that. We'll come back
with questions after that. We'll take a break.

--- Upon recessing at 10:55 a.m.
--- Upon resuming at 11:14 a.m.

QUESTION PERIOD:

THE CHAIRPERSON: Okay. Thank you.

We'll continue on with the public hearing for today. A
couple of comments here is that I was just handed a note.
The developer's presentation that was done this morning,
any questions regarding the geochemistry, Shannon Shaw is
not here this morning, so if there's anybody that have
questions, we could probably hold that off until after
lunch, but we'll go into questions now.
But before we go into questions there's --
this afternoon when we come back from lunch, after Jim
Antoine for the Liidlii Kue First Nation will do his
presentation, the Grand Chief Sam Gargan wants to make a
statement. So we'll -- we'll entertain that at that
time.

So for now I'm going to go into questions
now from the -- I've got a list of orders the way it's
presented here, questions to the Canadian Zinc, Alan
Taylor and David Harpley. So I'm going to go to the
Government of Northwest Territories. Is there a roaming
mic here somewhere? Staff, if we could get a mic.

I'll go to the Government of Northwest
Territories for any questions, but before we do that you
could state your name and what department or government
of the Northwest Territories you represent. So I'm going
to go to the Government of Northwest Territories. Is
there any questions to the presenter on their present
made here today -- on their presentation, again? Sorry?

MR. KEVIN MORRISON: Kevin Morrison,
GNWT, no questions, Mr. Chair.

THE CHAIRPERSON: Thank you, Kevin
Morrison, Government of Northwest Territories. I'm going
to go to Indian and Northern Affairs Canada. Most --
Teresa Joudrie, most likely will be talking, so questions
to the presenter?

MR. ROBERT JENKINS: Sorry, it's Robert Jenkins, I'm with INAC. And with me today I've got John Brodie and Barry Zajdlik, and they're retained consultants for INAC. And Mr. Zajdlik's got a couple questions, and Mr. Brodie's got a couple questions, so thank you, Mr. Chair.

THE CHAIRPERSON: Thank you. Just state your name again and -- and then put your questions out there and then I'll turn it over to Canadian Zinc, one (1) question at a time.

MR. BARRY ZAJDLIK: My name's Barry Zajdlik and I'm a consultant to INAC. Mr. Chairman, my first question has to do with the presentation. And there was a statement made that if RCA benchmarks, that's the reference condition numbers, could be met, that the mine would adopt those as water quality objectives. Can I confirm that's correct?

THE CHAIRPERSON: Thank you. I'm going to go over to Canadian Zinc, David Harpley.

MR. DAVID HARPLEY: Dave Harpley. As I said in the presentation, the process was that when we had made our initial predictions if we found at that point that the concentrations were above the RCA benchmark then we went to the second step in the process
in considering objectives based on toxicity.

THE CHAIRPERSON: Thank you. I'm going
to go back to INAC, again, Barry.

MR. BARRY ZAJDLIK: Mr. Chairman, my
question follows the first one still. The question was
if the -- the RCA benchmarks could be met, will they be
used as water quality objectives, not what happens if
they can't be met.

THE CHAIRPERSON: Okay. Thank you. I'll
go back to Canadian Zinc.

(BRIEF PAUSE)

MR. DAVID HARPLEY: Dave Harpley. The
question is kind of -- I -- I assume is coming to the --
where we are now, and the question, I assume, is asking
if we can now meet an RCA, will we adopt that as an
objective. And that is a complex answer that we can't
give at this point because, as my presentation showed,
there are some parameters where we are comfortably below
the RCA concentration and we could give some
consideration to adopting those as -- as objectives, but
there are others that we are -- that say uncomfortably
close to the benchmark or above it, and those we can't.

And the other part of the answer really is
you -- I don't believe you can make a determination on objective independent from the management plan and the discharge control, in other words the regulation of the discharge control. From my perspective all of those components are interrelated and you can't decide one (1) without considering the others.

THE CHAIRPERSON: Okay. Thank you. I'm going to go back to INAC again. Just state your name.

MR. BARRY ZAJDLIK: Mr. Chairman, it's Barry Zajdlik again with a followup question. Could we put slide number 46 on the screen, please?

(BRIEF PAUSE)

MR. BARRY ZAJDLIK: I know it's the slide that has copper and the various objectives and numbers.

(BRIEF PAUSE)

MR. BARRY ZAJDLIK: No, keep going. That slide. In the -- in the slide in front of you, you see that the highest predicted concentration provided by the proponent is 1.3 micrograms per litre of copper. It also shows that the estimated reference condition plus two (2) standard deviations is 2.43 micrograms per litre. So in
that picture it shows that the reference condition can be easily met.

The proponent is suggesting that the objective is not the reference condition, but something that's even higher. They're proposing that the objective for copper is 4 micrograms per litre. That value of 4 micrograms per litre is one point six (1.6) times higher than anything that's seen in the natural background. It's also three (3) times higher than the -- than the highest predicted concentration they can meet.

So my question is: Why wouldn't you adopt the RCA benchmark in this case when you can easily meet it? Why are you going instead to something that's triple what your highest prediction is?

THE CHAIRPERSON: Thank you. Thank you for your question and I'm going to go over to Canadian Zinc.

MR. DAVID HARPLEY: Dave Harpley. I've explained the process that we went through and I would agree that copper is one (1) of the parameters that we could consider to modify our assumption of -- as an -- as an objective.

But at this point we've elected to not, let's say, change horses in mid stream. We went with our process, we've described our process. I wouldn't want to
at this process suggest change this or that. I'd rather

do it in a, you know, overall constructive fashion.

THE CHAIRPERSON: Okay. Thank you. I'm
going to go back to INAC and you'd be okay with the
response, or do you have more questions?

MR. BARRY ZAJDLIK: Mr. Chairman, I think
we heard that the proponent is willing to engage in a
process to discuss the objectives and that's something
that we would heartily encourage.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. Thank you.

We're going to continue on with more of your questions
and then -- because we're going to have an opportunity to
-- when you guys do you're presentation, as well, we're
going to be engaging some further technical questions.
So please proceed.

MR. BARRY ZAJDLIK: Thank you, Mr. Chair.

It's Barry Zajdlik again with a question on mercury data.

I don't know if people can flip to documents very
quickly, but Appendix G of the submission by Hatfield on
May 9th of 2011, on page 3 states that:

"All mercury measurements are less than
the detection limit."
On slide 46, I believe it's -- is it ahead or behind this one? It's ahead of this. If we could slip -- flip forward to it. It's the slide with the -- all the numbers on it, the very complicated slide. That one, the next one.

If you look carefully at mercury and slide across from the -- to where it says, "Percent Detection Limits" it says that 88 percent of the observations are less than the detection limit, whereas in the report that was submitted on May 11th it says that 100 percent of the observations are less than the detection limit. What is the source of this discrepancy?

THE CHAIRPERSON: Thank you. I'm going over to Canadian Zinc.

(BRIEF PAUSE)

MR. JOHN WILCOCKSON: Mr. Chairman, my name is John Wilcockson, with Hatfield Consultants. In answer to your question, when we put out the -- the memo initially, we looked through the data and we noticed that some of the data had even numbers that looked suspicious that they may be non-detects.

And at that point we erred on the side of caution and we assumed that they were non-detects.
Subsequently we have gone back and looked again at the data and it appears that those values are measured.

THE CHAIRPERSON: Thank you. I'm going to go back to INAC.

MR. BARRY ZAJDLIK: Mr. Chairman, I have one (1) final question and it has to do with the RCA benchmarks that are provided on slide 46. When we look at the Hatfield memo of May 11th, 2011 on water quality objectives, the RCA benchmarks presented here today don't match.

And I'm wondering what the discrepancy is.

THE CHAIRPERSON: Thank you. I'll go over to Canadian Zinc.

MR. DAVID HARPLEY: It's David Harpley. Can we first confirm which slide we're talking about, please?

THE CHAIRPERSON: Slide 46.

MR. BARRY ZAJDLIK: Mr. Chair, it's slide 65. It's the slide we just had up.

THE CHAIRPERSON: Okay. Okay, we'll go to 65.

MR. BARRY ZAJDLIK: It's the next slide.

(BRIEF PAUSE)
THE CHAIRPERSON: This -- that's --
you're talking about this slide or the next slide here?

MR. BARRY ZAJDLIK: This slide, Mr. Chair.

THE CHAIRPERSON: Okay. Okay, I'll go over to Canadian Zinc.

(BRIEF PAUSE)

MR. JOHN WILCOCKSON: Mr. Chair, my name is John Wilcockson, from Hatfield. Yes, the numbers are different. The reason is when you calculate RCAs it can be done in a number of ways and there's been some discussion back and forth between regulators and Canadian Zinc.

There is some discussion about concern that -- of how non-detects were handled. So the numbers that we've presented here today, what we have done is with the non-detects we have assumed that they have a value of half the detection limit.

And also what we've done to be additively conservative, is we've taken the lowest non-detect, and we've assumed that all the non-detects are that value and that thus results in a lower -- a lower RCA value or should result in a lower RCA value.
THE CHAIRPERSON: Okay. Thank you. I'm going to go back to INAC to see if they clarified your --
your question.

MR. BARRY ZAJDLIK: Mr. Chair, that does clarify the question, thank you. We have further
questions from John Brodie.

THE CHAIRPERSON: Please proceed.

MR. JOHN BRODIE: Good morning, Mr. Chair.

My name is John Brodie.

My first question concerns the water storage pond and the freeboard provision. It's
conventional in management of dams to maintain freeboard to protect the dam from being overtopped during a -- a
storm or a hydraulic event. And this morning we heard that the freeboard might be used as a contingency storage
for water management of water that may not be treated and discharged.

And so my question is: How will the integrity or the safety of the dam be protected if the
freeboard provision is consumed with water for storage?

THE CHAIRPERSON: Thank -- thank you, Mr. Brodie. I'm going to go over to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. My presentation also included the comment that use of
freeboard in the dam would be a last resort, it would be
an emergency situation. So the expectation would be that it would not be a consumption of the full freeboard, it would be a portion of freeboard and also it would be a short-term situation that would be rectified very shortly thereafter. It's basically just acknowledging that we've got an arbitrary 1 metre which normally is a -- a good assumption to maintain always, but that, you know, there's a -- in a emergency situation there is that as an option.

THE CHAIRPERSON: Thank you. I'm going to go back to INAC and John Brodie, if there are any further questions.

MR. JOHN BRODIE: Mr. Chairman, John Brodie speaking. I'm going to move on to my next question. It concerns the placement of tailings in the underground mine. And we heard this morning that the objective is to put all the float tailings in the underground mine and that there's a surplus, or a contingency capacity to deal with this.

And my question is: What is this contingency consist of and what does it represent in terms of a percentage or a tonnage of space for additional tailings?

THE CHAIRPERSON: Thank you. I'm going to go back to Canadian Zinc.
MR. BYARD MACLEAN: Byard Maclean. After receiving the comments back from INAC in the most recent reports we went back to our mine plan and put a more detailed package together as to how the mining would proceed on an -- an annual basis in terms of the sequencing of ore coming out of the mine and ore going back into the mine. And out of that we developed a void balance, which means how many voids are there at any one (1) time that are available for paste.

And based upon that analysis and the other -- the previous analysis hadn't been done on the paste, we feel that at the end of the mine's life there will be about an 11 percent premium, or contingency, or extra void space than -- then that -- than as is required to put the paste back underground.

THE CHAIRPERSON: Thank you, Mr. Maclean. I'm going to go over to INAC.

MR. ROBERT JENKINS: Thank you, Mr. Chair. It's Robert Jenkins with INAC.

It appears that there's been some updated analysis and information. And INAC is wondering if it would be possible to have an undertaking of the developer to receive this updated analysis based on the paste backfill as well as discrepancies we've identified with water quality objectives.
THE CHAIRPERSON: Okay. Thank you.
Thank you, Robert. I guess the -- the time is very important in regards to -- for this Board to make a decision, so I guess I'm going to go to Canadian Zinc and if you want to respond to that question.

MR. DAVID HARPLEY: I think we are amenable to undertakings to provide additional information. In fact, we submitted a letter to the Review Board just prior to the Hearing saying that we anticipated these questions would come up based on our review of the technical report.

So -- and as we indicated in our letter, there are details that were requested that are very difficult to transmit in this type of forum. So while we did not want to put additional material on the record at that time, we did want an opportunity to -- to place the material on the record at some point. So perhaps undertakings is a vehicle to do that.

While I'm talking on the subject, I just wanted to add a little more to the tailing story, because I think it's an important one (1) that will come up again.

That's why I'd mentioned essentially what
INAC had recommended in their technical report we have now done. We've been through the process in detail and confirmed for ourselves that a) the tailings would all fit, and b) there was a contingency and there is not a sequencing problems in terms of getting all the material underground.

But also, in addition to the 11 percent contingency that he mentioned, we think there's additional contingency in the sense that as the tailings are placed underground, as Alan described this morning, the nature of the cut and fill is that each layer of -- of -- of paste is placed on top of the -- the last layer.

So what happens is you get compaction and the density increases. And we've made conservative assumptions on the density, but in reality we know that the density will go up. Therefore, we should have more space, so that's an additional contingency.

And as I say, I think it's worth reiterating that now, because there was a lingering and common theme in the reports about the tailings won't all fit and the consequences of that. And we are extremely confident that they will all fit.

THE CHAIRPERSON: Okay. Thank you. I'm going to go back to Robert, so I guess if you could just repeat that undertaking, then I'm going to go back to
Canadian Zinc and I'm going to suggest maybe a date, but Robert give response to Canadian Zinc's question -- I mean, comments.

MR. ROBERT JENKINS: Well, I -- it's Robert Jenkins with INAC. I guess, Mr. Chair, that this is information that we'd be interested in reviewing. It was a concern that we'd raised and we will discuss it this afternoon.

We haven't had the opportunity to review this new analysis, so we can't obviously comment on it at this time, but we're interested in reviewing it, so that's why we requested an undertaking. Thank you.

THE CHAIRPERSON: Okay. Thank you. I'm going to go over to Canadian Zinc, so you're -- you'd be open for -- for an undertaking here? And then I'll suggest a date.

(BRIEF PAUSE)

MR. DAVID HARPLEY: David Harpley. On the issue of the -- the tailings, we've pretty much done the analysis, so I don't think we would need more than a week to place that material as an undertaking on the record.

The initial question was two-pronged in
terms of both tailings and water quality objectives. I think we still need to have some more discussion on the objectives, because that may have a -- or may -- will -- will have a different schedule, but we are amenable to discuss it.

THE CHAIRPERSON: Okay. Thank you.

Okay, so tomorrow's the 24th and sometimes we usually allow for a week or two (2) weeks for this thing, but since you're asking for a week, maybe what we could do is suggest maybe, you know, July 4th.

Would that be enough time to submit your undertaking and -- and then send it to the Review Board and then we'll post it, but -- that would be good? We can work with that.

--- UNDERTAKING NO. 1: Canadian Zinc to provide updated analysis and information based on the paste backfill as well as discrepancies identified with water quality objectives by July 8th, 4 p.m.

THE CHAIRPERSON: We'll continue on with your questioning again from INAC.
MR. JOHN BRODIE: Mr. Chairman, this is John Brodie. I have a follow-on question to the comments on consolidation of the tailings backfill. My understanding is that the objective of producing paste backfill is to produce a very dense product as it relates to mining purposes and that in this case it's also proposed to have cement added to it.

So my question is: How much consolidation would actually occur in that kind of material and what does that actually represent as a contingency in terms of percentage additional storage space?

THE CHAIRPERSON: Mr. Brodie, I'm going to go over to Canadian Zinc.

MR. BYARD MACLEAN: Byard MacLean, the model that was set up to assess the additional void space or contingency void space contains a -- is a -- a fairly large spreadsheet that contains a number of assumptions and -- and also information that we've got from previous testing. And I think it would be simpler for Mr. Brodie to review that flow -- spreadsheet, because I think it -- it presents all of our bases.

THE CHAIRPERSON: Thank you. I'm going to go back to INAC, Mr. Brodie.

MR. JOHN BRODIE: Mr. Chairman, John Brodie. I think that's probably an appropriate way to
My next question concerns the mine closure scenario. And we heard this morning that the -- there's a prediction that 99 percent of the water -- groundwater will flow around the paste backfill in the underground mine. And also that the zinc concentrations in Prairie Creek are predicted to be lower than the pre-mining condition.

And so my question relating to these predictions is: Did the company consider the water flow in or through low density backfill material that may be placed in the mine, rocky ore type material that may be left in stopes, or in the wall of stopes, and may -- and finally, water flow through the disturbed layers of -- of tailings backfill that result from the drilling, blasting and removal of ore process that breaks up the backfill surface.

THE CHAIRPERSON: Thank you, Mr. Brodie. I'm going to go over to Canadian Zinc.

MR. CHRISTOPH WELS: Good morning, Mr. Chair, it's Christoph Wels speaking. I will respond to the question that relates to the groundwater flows, and I will refer to Shannon Shaw this afternoon regarding some of the assumptions related to the geochemical assumptions.
In terms of flow, what we have done, we have estimated how much water would actually be in contact with the paste backfill, the cemented paste backfill, by simulating an idea -- presenting an idealized groundwater flow model. And those model predictions show that the vast majority of the groundwater moving in the fractured vein fault will circumvent or avoid the paste backfill and stay in the open fracture surrounding the actual cemented paste backfill. And that's where this number of 99 percent flow not contacting -- not contacting the cemented paste backfill is coming from. We don't say that 99 percent of our groundwater is circumventing the entire mine area. We're just saying for calculating, and again, I'll refer to Shannon Shaw this afternoon, how that was taken into account for the geochemical source concentration estimates.

But we are estimating that only a small portion of the flow through the mine, through the fracture zone that's later backfilled is actually in contact with the bulk of the paste.

THE CHAIRPERSON: Okay, thank you. Mr. Brodie, to conclude part of your question that was posed to Canadian Zinc, Shannon Shaw is going to be here this
afternoon, so we could come back to help answer that question you put out to Canadian Zinc?

MR. JOHN BRODIE:   Yes, we could answer that part -- it's John Brodie speaking. Yes, I -- I'd like to hear that answer this afternoon. But for clarity on -- on this groundwater flow aspect my question really might be phrased differently.

Is it possible that there would be backfill material or rocky debris in -- in and around the low permeability backfill that might be subject to groundwater flow that would result in flushing of zinc?

THE CHAIRPERSON:    Thank you, Mr. Brodie. I'm going to go over to Canadian Zinc.

(BRIEF PAUSE)

MR. CHRISTOPH WELS:   Mr. Chair, Christoph Wels speaking again, responding to this question.

I'm not a paste backfill expert but -- I'm the hydro-geologist, but we have tested the paste backfill and the broad permeability of the paste backfill is about three (3) orders of magnitude lower than our estimate of hydraulic connectivity in the fractured rock surrounding the paste backfill.

It's my understanding that the paste
backfill is a -- is a processed engineered material that's placed, so I wouldn't expect too much variability in this hydraulic connectivity of this low permeability material. My paste backfill expert here sitting behind me was telling me that he would not expect that we have very coarse material left behind by -- when we place the paste backfill. All the coarse material will be removed from the stopes and then the paste backfill will be filled, it's my understanding, from the bottom up.

So we -- we're -- we're removing the waste rock, cleaning out the entire stope, and then coming back in three (3) metre intervals, placing paste backfill which is a fine grain material, so I wouldn't expect to see large boards or large coarse material that could create significant permeability.

I think the only potential room where this could occur is at the very roof of a stope as you walk yourself up to the very, very top. The only complication could be at the very, very top of an eighty (80) metre stope, you might have the very top, I don't know, 50 centimetres, maybe a metre, where you might have a little bit of void space left behind potentially, although I -- my understanding is that Canadian Zinc will try to minimize any of those voids.

However, those voids will be fairly
isolated, if you think about it, from the entire fault zone that's running through the mine. I still contend that the vast majority of the groundwater flow will not move through the vast majority of this block material that's being placed top -- on top of each other every 3 metres, but it will avoid these -- this block of cemented material and it will move in the fractured bedrock that surrounds this block of engineered placed material because it is vastly more permeable than this block that you are placing.

I hope that answers your question.

THE CHAIRPERSON: Thank you. We'll go to INAC, Mr. Brodie.

(BRIEF PAUSE)

MR. JOHN BRODIE: Mr. Chairman, John Brodie speaking.

In principle I agree with the -- the response that the engineered backfill material will be low permeability. However, the -- the prediction that there's virtually no flow through this material and that the loadings coming out of the mine after closure seem quite optimistic, in my opinion. And it's not the flow through the cement, the bulk of the tailings, that is --
is of concern.

My question really is -- pertains to the flow of water through the tailings that might be disturbed by blasting processes, by the excavation of ore as ore is taken out of each successive sequential lift through the mine, and small pockets of ore type material that remain in the wall rock ore cannot be cleaned up at the wall of each stope.

And it's these sources of material that I think make the prediction quite optimistic, so I'm -- I'm trying to understand how the company has -- has incorporated these inconsistencies or imperfections in the natural mining process into their prediction.

THE CHAIRPERSON: Thank you, Mr. Brodie. I want to go over to Canadian Zinc. And I think there was a second part of that question, so I wanted to give you guys to think about it, and then try and best answer that question.

(BRIEF PAUSE)

MR. BYARD MACLEAN: Byard MacLean. I'd like to make it -- in an attempt to answer the question, I'm going to make a general statement about how we've got our -- how we've prepared our mine design and our paste
Starting back in about 2007 our mining engineers, who have forty (40) years experience designing underground mines, picked up the project where it was and developed an underground mining plan.

We brought in Golder Paste Tech, who are paste people, that's all they do for a living. And we said, Because of this special situation, we have to put all the tailings underground. That's -- and -- and I've said that to meetings regarding this permit for a couple of years now.

And so we brought in the Paste Tech, and they did the sampling, and -- and they did the testing, and they did the design. And then principles of Paste Tech moved over a company called Mine Paste Engineering, so the same people picked up the project, and they have done the design. And we have talked to those folks about, How do you get the paste underground? What's the best method of doing it?

We've gone from truck -- from pumping it underground to trucking it underground on their basis. They've gone, What is the best density you can get underground, 10 inch slump, 7 inch slump, 6 inch slump? That not might not mean anybo -- anything to anybody, but it means a lot to them.
We made a selection of what they thought was best. We talked to them about underground problems, how do we get the stuff underground. Thou shalt not leave development muck underground because that's taking up space. Thou shalt not do a number of things.

And then we talked to them about how do we get this material underground in -- in -- so we fill up the voids the maximum way of doing it, and that's a combination of trucking it and it's a combination of, once you get down there, pumping it, and it's different in each individual zone.

And for -- to -- to answer questions about what -- what I consider minor issues about what happens if there's a bit of rock there, I mean, you deal with those problems when you're operating a mine when you're operating a mine.

But at the des -- the design stage we look at every possible -- possibility of how we can mitigate not putting tailings on the surface. That's the principal driver. In most under --paste operations it's not the principal driver; it's fill up the stopes.

And so we can go back with a specific set of -- of issues that INAC may have on -- on what do you do with this if you -- if you can't get little bit -- bits and pieces out of the mine, and -- and we can review
those and get back to them.

But generally speaking, we brought the best people we can find that only do paste work to do our design, and we've -- we've pushed them and we've beat on them to give us the best possible design.

(BRIEF PAUSE)

MR. CHRISTOPH WELS: Mr. Chair, it's Christoph Wels speaking again. I just wanted to follow up on this question just to have strength in my argument about the flow calculation and that we're using 99 percent as a con -- 99 percent of the flow will not contact the bulk of the paste, which I think John's question is -- is driving at.

I just referred to a model study that was performed and is documented in our RGC responses to Information Requests Prairie Creek Mine Northwest Territories, dated September 6th, 2010.

In this document there is an Appendix 1 in which I outline our modelling work that was performed to estimate how much of the groundwater flow will be in contact with the bulk paste tailings.

I just want to expand a little bit on this. We actually developed a flow model, a three (3)
dimensional groundwater flow model for the mine site in
order to estimate the bulk permeability of the fracture
zone itself, which is an important number, which is our
5E minus 5 metres a second.

      It's a very high permeability that we're
estimating for the fracture zone in which the -- the ore
zone is hosted, and in which we will place this backfill.
The backfill has been te -- tested in the lab as 5E minus
8. So there's three (3) orders of magnitude difference.

      We then used these numbers and looked at
the local effects of this variation and permeability
between the fracture zone that'-- hosting initially the
ore, and later it's hosting the cemented pa -- paste
backfill.

      We simulated it as a much larg -- much
more detailed scale. And again, I refer to Appendix 1
where this is documented. And looking at these flow
simulations we estimate that 99 percent or less will
contact the paste backfill.

      Now going to the question that Mr. Brodie
asked here is what he's referring to, the way I
understand, is are marginal effects of imperfections
where the paste backfill doesn't touch the wall rocks.
That is essentially very similar to what we have assumed
in our calculations where we have an extension of a
fracture zone that's going beyond where you place your 
1 paste backfill.
2
   So we're actually estimating that the 
3 fault zone is on average about 10 metres wide, we're 
4 placing about 5 metres of paste backfill in the middle. 
5 So on either side we have actually 2 1/2 metres of 
6 fractured highly permeable rock that allows the 
7 groundwater to bypass the cemented paste backfill. 
8
   If we have an imperfection on the side of 
9 the wall because it's not a perfect fit, or there's some 
10 loose rock, it will just become the fractured bedrock and 
11 is essentially very similar to what we've simulated in 
12 this idealized flow section. 
13
   So I still -- I still maintain that I 
14 think -- and we estimated, in fact, lower contact flows 
15 than 99 percent. But the 99 percent that we used for our 
16 loading calculations, in our -- in our estimation is 
17 conservative in allowing contact of the water with the 
18 cemented paste backfill. 
19
   And again, I -- I'd suggest that we 
20 revisit this question in terms of explaining to you how 
21 we use this 99 percent contact in terms of estimating 
22 geochemical sources when Shannon Shaw is here this 
23 afternoon. There's additional conservatism built into 
24 our modelling to then calculate how much load will come
from having this 1 percent of groundwater flow contacting the actual matrix of the cement paste backfill.

Okay? Thank you.

THE CHAIRPERSON: Okay. Thank you. So I'm going to stop there. Mr. Brodie, I think what I'll do is we'll come back after -- after lunch. We -- we're going to stop, we're going to come back at 1:30. And this will give us time to have Mr. Sheldon (sic) show up here to help with some of the questions you guys have and for clarification.

At the same time, we will be running behind schedule, so I'm okay with that. I want to accommodate all the presenters and people in the community that's here, so that people have a better understanding of what Canadian Zinc wants to do here. And -- and also it helps our Board, as well, to understand what's going on here in terms of some of the technical questions.

With that I'm going to -- just one (1) thing I want to recognize, an Elder from Liidlii Kue First Nation is Ant -- Jonas Ant -- Antoine. I just want to say mahsi. He's an Elder from this community, so it's good to see you.

With that, we'll stop, and we'll come back at 1:30. Mahsi.
Upon recessing at 12:00 p.m.
Upon resuming at 1:45 p.m.

THE CHAIRPERSON: I'll get everybody to sit and we can start. I'll get everybody to come in.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. If I can get everybody to come in and join us, we're gonna start. I know that we -- we're a little bit behind schedule here, but I just want to, again, thank Canadian Zinc and -- and then INAC for taking the time during lunch hour to sit down and -- and iron out some of their issues or questions they may have. And I'm hoping you guys had a good meeting.

So we can continue on with the questions to the presenter here today. Also, there's -- after we're done with the questions, the Dehcho Grand Chief wants to make a statement so I'll -- I have -- I want to accommodate that.

So I guess my question will be is, coming back to INAC and their questions to the presenters here today, my -- I guess, the -- I -- I'll go back to INAC and -- and to the -- if you guys are able -- if you guys
have any more questions to the presenter?

And maybe what we could do is we could get you to, again, state your name for the record and -- because the reason why -- I also want to emphasise that there's a lot of people here who also wants to -- may want to ask questions. So I'm gonna ask that maybe -- we'll go back to INAC and maybe we can limit our questions. Thank you.

MR. ROBERT JENKINS: Thank you, Mr. Chair. It's Robert Jenkins with INAC.

Yes, Mr. Brodie does have two (2) more questions, so thank you for that.

THE CHAIRPERSON: Yeah, please proceed.

MR. JOHN BRODIE: Mr. Chairman, it's John Brodie.

Before lunch we were discussing the issue of groundwater flow in and around the backfilled mine, and I think that unfortunately the question was not as clear as it might have been. So I'd like to just provide a description of how I see this mine and create a mental picture that I think will help people better understand the question.

So what I'm thinking is if -- if you envision standing in a tunnel and on both walls is the host rock, or the country rock that's not ore, and you're
standing on backfilled tailings -- this is the low permeability tailings that they're planning to place in the mine -- and in the roof above your head is the ore. And the mining procedure will be that they will drill the roof and blast that rock and it will fall on the floor. And subsequently the mining equipment will then come in, drive on that cemented tailing surface and remove all of the ore, and they will repeat that sequence through the ore body.

And as that work is being done, each time they remove the ore from on top of that tailings they will in -- the mining method will tend to break up the tailings, so it will be disturbed; it won't all be low permeability material like the bulk of it that was placed there. And more importantly, at the wall -- at the corner where the floor and the wall meet on both sides there will tend to be a small amount of diluted ore -- maybe wall rock, maybe ore -- that is impractical to pick up. And that material will remain in the stope and be encapsulated in part by the backfill, but it will have one (1) side against the fractured wall rock; this permeable rock around the ore.

So my question is: At the end of the mine life, when we have groundwater flowing through fractured rock and it's contacting wall rock, it's contacting the
side of the backfill, has the predictions for the amount of zinc also accounted for that small quantity of ore that will remain in the stope at the edge of the ore zone? And the second question that follows on from that is: If that did become a problem, what is the contingency to deal with that?

THE CHAIRPERSON: Thank you, Mr. Broda -- Brodie. I want to go back to Canadian Zinc.

(BRIEF PAUSE)

MS. SHANNON SHAW: Hi, this is Shannon Shaw, with Phase Geochemistry. The geochemical load predictions accounted for that scenario by assuming the surface area of the mine workings were essentially behaving like host rock, waste rock, for a half metre depth into the wall, so it adds a load from a reactive fringe through the whole surface area up to about a half a metre.

So that would account for the rubble rock, essentially, that would fall into any open spaces. And the paste backfill was assumed as 10 percent of -- of the entire volume that would release a reactive mass into the water flowing into that, so the contaminant loading source term predictions accounted for it on that
MR. DAVID HARPLEY: This is David Harpley. I guess it was a two (2) part question. The first part was the geochemistry side, and the second part was the contingency, so I'll talk to the contingency. I guess we feel that our predictions are such that we have confidence that we understand the system and -- and the expectations of what's going to happen. But as with any form of predictions, you always want to do monitoring to confirm your assumptions. And we will have a lot of opportunity to monitor through the life of the project to validate the chemistry assumptions that were made and, indeed to get more representative, perhaps, samples of paste and -- and do more leachate testing.

So monitoring will be definitely part of the equation. And the fallback position, if the leachate was worse than expected, would be to have a -- some kind of a pumping system, at least temporarily after closure, to control the system before we get to the point where it's not controlled anymore. And the point at which it's not controlled, and we basically accept that it's -- or feel that's it's steady state and -- and not going to get any worse, would also be verified by monitoring. So that's the contingency.
THE CHAIRPERSON: Thank you. I'm going to go back to INAC and ask Mr. Brodie, do you have any further comments or questions?

MR. JOHN BRODIE: It's John Brodie. No further questions right now, Mr. Chairman.

THE CHAIRPERSON: Thank you. Okay, I want to continue on. And before I move that, I want to say thank you to the staff, and, again, Canadian Zinc for taking the time to sit down and talk about some of the common issues and questions, and I think it's a great idea that we continue to do that.

I'm going to go back to -- I missed the -- I guess the GNWT earlier when I mentioned that if there's any questions. I believe Aileen Stevens, on the GNWT, is she here? She has a question?

MS. AILEEN STEVENS: Hi. Aileen Stevens, with ENR. During your presentation you just glazed over some of the dust control measures you were going to be implementing, specifically about the concentrate during transport, haulage, bagging, that type of process.

I was wondering if you could please just go over that for the people here.

THE CHAIRPERSON: Thank you, Aileen.

Canadian Zinc...?

MR. DAVID HARPLEY: Dave Harpley. Yeah,
we glazed over because we had covered it in -- yesterday, to some extent, and in trying to save a bit of time, that was the result, the -- the reason for the glazing. But I think we will probably discuss it in a little more detail when we get to Environment Canada's technical report and the discussion thereafter.

But we're aware that dust is a potential issue. As far as the concentrates are concerned, our intent is to have a bagged concentrate there -- where the bag on the outside is essentially clean and the vehicle that picks it up from the storage shed is also clean when it leaves the shed. So that's the basic premise of the dust management from the concentrate side of things. And then the -- the additional dust management is related to site operations and dust ball monitoring.

And does that answer your question, or was there something else in addition you had in mind?

THE CHAIRPERSON: GNWT, Aileen Stevens...?

MS. AILEEN STEVENS: Aileen Stevens, ENR.

No, that's fine. We can discuss it later during the presentation. Thanks.

THE CHAIRPERSON: Thank you. Continue on, questions for the -- to the presenters, Canadian Zinc, on their presentation.
Any questions from Fisheries and Oceans Canada?

(BRIEF PAUSE)

MS. LORRAINE SAWDON: Thank you. It's Lorraine Sawdon, with Fisheries and Oceans. We've just got a couple of questions for Canadian Zinc. The first one has to do with the exfiltration trench. And throughout this assessment the diffuser design has changed about four (4) times, most recently to the double-piped exfiltration trench. Can Canadian Zinc please provide an explanation for the rationale for the progression of the designs?

THE CHAIRPERSON: Okay, thank you. Canadian Zinc...?

MR. DAVID HARPLEY: It's David Harpley. I've heard the number 4 mentioned a few times. Quite honestly, my memory's getting a little fuzzy, whether it's three (3) or four (4), but I know it's three (3). I'm not -- I'm not sure we ever intended to discharge through the Harrison Creek culvert as we do currently. I believe our first proposal for the discharge was a diffuser, consisting of a pipe with --
pipe with ports that would discharge water into a deep
channel of the creek.

There were two (2) other options at that
point, one (1) was a simple culvert direct to Prairie
Creek, and the third was an exfiltration trench. We did
say at the time that we needed to do more investigation
of the three (3) options, and, specifically, the diffuser
option, which we subsequently did, and we determined a
couple of things: The first one was that there really
weren't any large, deep channels in the immediate
vicinity of the catchment pond. And, secondly, having
discussed the situation with our hydraulic engineers,
there was significant concern that whatever structure we
placed within the flow of the creek would be subject to
damage from flood events.

So based on those two (2) results, we
basically ruled out the diffuser as our option. At that
time, our consultant indicated that of the two (2)
options remaining there were the issues of construction
manage -- management of construction impacts associated
with an exfiltration trench, and that the option with
least construction impacts would be the culvert.

So at that point we elected to recommend
the culvert, and at the same time we were doing mixing
analysis modelling to determine what sort of plume we
would get from the discharge. And what we found was that
the plume was reasonably significant, to the point that
regulators were not comfortable with the size of the
plume.

So, therefore, we went back and
reevaluated, as one tends to do through an EA process,
and went back to the third option, which was the
exfiltration trench. And we've proposed an approach
whereby we developed the necessary program for protection
and construction management and everything that would be
associated with partial excavation of the creek bed,
placement of the exfiltration system and then
reconstruction of the bed and the habitat, and
considering whether or not we need compensation as a
result.

We do have confidence that the trench will
be an effective and stable solution and that's why we've
proposed it. We're comfortable that it would not be
susceptible to damage from erosion, and we're also
confident now that we can manage the construction side of
things and minimize those impacts.

THE CHAIRPERSON: Thank you. I'm going
to go back to your second part of your question. I'm
going to go to the GNWT. Have any statements -- oh,
sorry, Fisheries and Oceans, sorry.
MS. LORRAINE SAWDON: Thanks, it's
Lorraine Sawdon with Fisheries and Oceans. A second
question then would be: Can you please indicate how
mitigations to impacts to fish and fish habitat have been
developed as these designs have progressed?

THE CHAIRPERSON: Thank you. I'll go to
Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. The
mitigations we have in mind for construction and
implementation of the exfiltration trench really start
with an understanding with the habitat in the area and --
and also the -- the utilization of the area by certain
species of fish.

We know that it's migration habitat for at
least bull trout and mountain whitefish. We also know
that we have slimy sculpins in the area both upstream and
downstream. Our -- our expectation is that migration
likely occurs upstream in the late summer or fall to
spawn, and then migration back again later on after
spawning, sometime in -- in the August period. So that's
what we mean by migration.

We also have, at this point in time,
habitat data for a number of different locations, both
upstream and downstream of the exfiltration trench,
sufficient to give a fairly good indication of what the
actual habitat is at the trench location.

And that was the basis for the design of the construction and the mitigation at this point. What we -- what we have said though, is that we will send our consultants into the field and do specific habitat mapping of the exact location of the trench so we have a clear picture of what the habitat is at that location, so we know what it is that we have to recreate when we've installed the trench and -- and give consideration for compensation requirements at that time.

The other mit -- mitigations that we have in mind after the construction is we will have screens on this trench. The water that goes into the trench will be coming out of the water treatment plant which has been through a clarifier.

So we're really expecting very little in the way of sediment and material being discharged to the trench, which means very little in the way of sediment being released into Prairie Creek. We've also done the - - the modelling of water quality parameters including things like TDS and sulfate, and the dilution ratios that we see based on the -- the water management for those and metal parameters is the same for things like temperature. We don't expect there'll be a -- a substantial difference between the temperature of the discharge and the creek
water itself because of the dilution and mixing mechanisms that are built into the system.

So that's kind of a quick, off the top of my head, summary of the mitigation -- some of the mitigations that we will employ for this system.

THE CHAIRPERSON: Thank you. Going back to Fisheries and Oceans Canada; is there any further questions you have?

MS. LORRAINE SAWDON: Yeah, I've got -- I've got two (2) further questions. Is that all right?

THE CHAIRPERSON: Yeah, please proceed.

MS. LORRAINE SAWDON: Thank you.

Lorraine Sawdon, Fisheries and Oceans again. Thanks, David, for the last answer.

Regarding the site runoff, on one of the slides, I believe it was the water management slide, the site runoff is shown to be directed to the catchment pond. And I'm curious, have the predictions for the TDF -- or sorry, TSS to be discharged to Prairie Creek incorporated sediment brought into the catchment pond from the site runoff?

THE CHAIRPERSON: Thank you. Canadian Zinc...?

MR. DAVID HARPLEY: David Harpley. Yes, in fact, it has because the two (2) pieces of evidence
that we've used for the -- the site runoff -- the -- the
first piece of evidence is that from visual operation,
from being on the site for many years, we know that even
during intense rainfall events, because of the majority
of precipitation infiltrates before it actually arrives
in the ditch, the ditch water actually stays quite clear,
and during those rainfall events, considerably clearer
than Prairie Creek is. So there's the visual side of it
and -- and we're actually observing that there's not a
lot of sediment being carried into the ditch and into the
catchment pond.

The second part of the data base is that
we did sample the ditch for metal parameters and others
as part of our water management plan and overall
discharge planning, and that analysis included TSS, and
as we expected the concentrations were low.

THE CHAIRPERSON: Thank you. I'm going
to go back to Fisheries and Oceans for your final
question.

MS. LORRAINE SAWDON: Great, thank you.
Lorraine Sawdon, Fisheries and Oceans. For this would we
be able to turn to slide 30 of Canadian Zinc's
presentation.

(BRIEF PAUSE)
MS. LORRAINE SAWDON: Yeah, that's the one. Could you, while you're there, just circle the waste rock pile for us, please.

MR. DAVID HARPLEY: Right here.

MS. LORRAINE SAWDON: Perfect, thanks.

And sorry, David, could you please also go to slide 30. My question is about the collection pond at the base of that -- or sorry, the -- slide 28. The coll -- question's about the collection pond at the base of that waste rock pile.

And from this slide, the collection pond looks well, it looks very small. And -- sorry, my questions is: What factors were considered in the design of the collection pond, and were high precipitation events, or a high snow pack years incorporated into the design?

If you can also explain how water from the collection pond will be delivered to Cell B, and what the contingencies are in the event of an over-capacity situation I'd really appreciate it. Thanks.

THE CHAIRPERSON: Thank you for your question. I'm going to go to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. The -- the engineering was done by Golder. And, Dave, next to me can jump in if I miss anything, but I think the
assumption for the design of the -- the pond is -- it
would be based on a one (1) in one hundred (100) year
return period precipitation event.

And, also, as far as management of the
water, the intention would be one (1) of two (2) things.
Either we would pipe it down to the mill and integrate it
into the water management system, as we plan to do with
the stockpile runoff. Or another possibility, and, at
this point, perhaps it's more likely, we would drill a
borehole from surface in the immediate vicinity of the
collection pond and direct the water into the
underground. The reason being, that the underground is -
- is underneath the location of the waste rock pile, so
it's a convenient opportunity to route the runoff into
the underground where we already have an established
collection system and large pumps. And it would easier
to -- to manage the water on that basis and avoid the
issues with a long pipeline and winter freezing and that
sort of stuff.

I'm not sure -- I caught the end of your
question -- did that cover everything you were looking
for?

THE CHAIRPERSON: Thank you. Fisheries
and Oceans Canada...?
(BRIEF PAUSE)

THE CHAIRPERSON: I take that as a "yes".

MS. LORRAINE SAWDON: Yeah, thank you.

We're -- we're happy.

THE CHAIRPERSON: Okay. Thank you.

Questions to the -- do you have a -- from Nahanni Butte Dene Band to the presenters. Any questions from Nahanni Butte Dene Band on the presentation?

MR. PETER REDVERS: Peter Redvers -- Redvers, representing Naha Dehe Dene Band. Rather than asking questions now, and with the agreement of the -- the Board, INAC, and Canadian Zinc, what I'd prefer to do is take it -- because there's some questions relating to sort of resolution of the water quality issues that are the sort of primary concern with the community.

What I'd prefer to do is ask some questions following the INAC presentation, but be allowed to ask questions both of INAC, and also at Canadian Zinc at that time because they -- it may require both to respond to. I've spoken to David Harpley, and -- and he's agreed to do that. So as long as INAC or AANAC (sic) or -- and the Board are willing to, if I could just hold questions until then, that would be preferred.

I'm not quite sure how to say it, as does
anybody else, and...

THE CHAIRPERSON: Okay. Thank you. I presume that's okay with INAC. I always wonder why they changed their name. I always thought it was Indian Repairs. Thank you.

Okay, moving on. We're going to go to Parks Canada. Any questions for the presenter?

(BRIEF PAUSE)

MS. KATHERINE CUMMING: Good afternoon. My name's Katherine Cumming. And for a change of pace, I'm going to start with questions on the road.

You've said that the permafrost is expected in places, but you don't know how much you're expecting to find. You said that the mitigation for permafrost is to cover it. How can you estimate -- provide an accurate estimate of the aggregate needs when you don't know the extent of permafrost?

THE CHAIRPERSON: Thank you, Katherine.

I'm going to go to Canadian Zinc.

MR. DAVID HARPLEY: It's David Harpley. I guess the -- the answer is really that we don't know for sure how much permafrost they are, but what we do know, based on the experience of our consultant and on
the recognisances that he's undertaken, is there an a -- is an expectation of the possible presence of discontinuous permafrost. So it's not that we're expecting continuous and extensive stretches of permafrost. We just want to investigate for and be prepared for the possibility of permafrost occurring.

The other factor that's relevant is that, as you know, there is an existing winter road, and it was built and operated for two (2) seasons previously. And to our knowledge, speaking to -- speaking to a number of people that operated on the road and were involved in the construction, it doesn't appear that there were any issues of permafrost that were encountered previously.

THE CHAIRPERSON: Maybe David -- maybe if you could -- Dav -- David, if you could just back away from the mic a little bit more too so we don't get the feedback. Okay.

MR. DAVID HARPLEY: Okay. It sounds like it's going off periodically, that's why I'm getting closer.

So I guess our expectation is -- is that there won't be a lot of permafrost. So our -- at this point, our approach is really to deal with the situation where we may encounter some. And that's why we're
suggesting that we -- we may well need to use aggregate
to -- to insulate those areas to -- to keep them stable,
but we would prefer not to use a significant quantity of
aggregate, and certainly no more than we need to.

THE CHAIRPERSON: Thank you. I'm going
to go back to Environment Canada. Again, maybe --
Katherine, maybe you could let me know your last name. I
didn't hear your last name again.

MS. KATHERINE CUMMING: Katherine
Cumming, with Parks Canada. So in your answer, my
understanding is that you haven't taken an estimate of
the amount required to mitigate permafrost into your
estimate -- partial estimate of aggregate needed for the
road?

THE CHAIRPERSON: Thank you, Katherine.
I'm going to go back to Nahanni -- I'm sorry, Canadian
Zinc.

MR. DAVID HARPLEY: Dave Harpley. We've
made allowance for areas of permafrost in our overall
estimate of aggregate, and we certainly never think that
we're going to be limited in terms of aggregate
availability. Because we will be creating a certain
amount of fill ourselves just in some of the areas where
we will need to do some side hill cutting, and that will
generate material, some of which we believe will be
useable as aggregate or as base material.

But in addition to that, we know of at least two (2) significant sources of aggregate that would be far in excess of any needs we would have. The second part of the answer is that while we don't know for sure if there's permafrost and how extensive it is, we have planned to do further investigation -- and I can't remember whether we committed to it, but we -- it's -- it's certainly something we intend to do -- to do some further investigation on the ground with some intrusive work, to do a further assessment of just how much permafrost might be out there and -- and how we would best manage it.

THE CHAIRPERSON: Thank you. I'm going to go back to Katherine Cumming.

MR. KATHERINE CUMMING: Kath -- Katherine Cumming. You said that you had taken into account permafrost in your estimate of aggregates, but I'm looking at your response, IR-2-1, and you made your estimate based on 20 kilometres of cut and fill and the area and have no mention of permafrost in there. So I would -- just would like some clarification.

THE CHAIRPERSON: Thank you, Katherine. I'm going to back to Canadian Zinc for clarification on that.
20 kilometres of cut and fill is quite some distance of cut and fill, and we would hope it will be less than that. But it is our expectation that any requirements for permafrost insulation would be encapsulated within that estimate.

THE CHAIRPERSON: Thank you. I'm going back to Parks Canada, Katherine Cumming.

MS. KATHERINE CUMMING: Katherine Cumming. Thank you. I'll move on. You mentioned the sources of aggregates. And in the response to IR Round 2, Appendices C, you showed a map where there were two (2) aggregate sources identified in the park. One (1) of those sources is near the Tetcela River and would require a stream crossing. According to that map, there's -- there's just no way you could get from the road to that label without crossing a stream. And yet, in your response to IR-2 -- DFO-2-2, you said there would be no stream crossings to aggregate sources.

Can you explain this difference?

THE CHAIRPERSON: Thank you. Canadian Zinc...?

MR. DAVID HAPLEY: David Harpley. At present, what I would consider to be three (3) aggregate sources in total. The first is the quarry that we've
utilized before at the mine site. The other two (2) are on the road. The first one of those is the Sundog Creek area itself. And of course, it's a long creek, but for many stretches the access road alignment traverses terrain right at the toe of significant talus slopes; and in fact, even crosses those slopes. And part of the maintenance of the road includes a requirement, probably on an annual basis to recreate the roadbed where it does cross those talus materials because they will creep. So that process provides the availability of aggregate, both to recreate the roadbed and for -- as a source for other needs. And it's a source that we can readily access; there's no additional stream crossings, and we are above the high water mark of -- of the creek. The third source of aggregate is outside of the park and it's Grainger Gap. There is similarly extensive talus areas in the Gap area, both inside the range and on the -- the east side of the range. And this area is also accessible from the existing alignment without an additional creek crossing.

THE CHAIRPERSON: Thank you. Going back to Katherine Cumming, Parks Canada.

MS. KATHERINE CUMMING: Katherine Cumming. Thank you. So that's new information, I guess, confirming that you won't be applying for any other
aggregate source in the park except for -- at Sundog?

MR. DAVID HARPLEY: David --

THE CHAIRPERSON: Back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley.

That's correct.

THE CHAIRPERSON: Thank you. Parks Canada...?

MS. KATHERINE CUMMING: Thank you.

Katherine Cumming.

And on the same map, the -- the label at Sundog Creek was approximately 1.5 kilometres long. How large do you expect this borrow source to be and -- and what impacts would you expect to have from it?

THE CHAIRPERSON: Thank you. We'll go back to Parks Canada -- I'm sorry, Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. I'm not sure I understand the question how large. The quantities of aggregate that we would require that we've estimated I think are really quite small in relation to the size of those talus fans which are extensive and all along that stretch. So I think it would be very unlikely we'd make any major dent in any one of them.

So I -- I don't think it will be like a kilometre and a half; that's more to do with exactly what's the best location to draw the aggregate. And in
In terms of an impact, frankly, I would consider it to be minimal because of the sheer size of these talus fans.

THE CHAIRPERSON: Thank you. I'm going to go back to Parks Canada.

(BRIEF PAUSE)

MS. KATHERINE CUMMING: Katherine Cumming, Parks Canada.

I'll turn now to water. You haven't provided any information about the Mosquito Lake volume of bathymetry, and -- and it could be that that's a perfectly fine source of water. If -- what lakes would you have to draw from if it turns out that that isn't though?

THE CHAIRPERSON: Thank you. I'm going to go back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. We have done some preliminary work on Mosquito Lake. We do know that the lake is greater than 1 1/2 metres deep below a 1 metre ice cover in mid-winter, so we are confident that Mosquito Lake will be an acceptable source of water for our road construction.

We also know that we need to do additional survey work to create a volume estimate and provide other
details before we can have that verified and approved by DFO. But at least the preliminary work indicates that it will be a significant source.

Beyond that lake other sources of water we feel that we can rely on at this point. One (1) is the - - the mine well at the site where we currently draw water for potable water and where we would continue to do through operations.

And that's coming kind of the -- from the west end. From the east end of the road, we start at the Liard River, in practical terms. So -- so that is an additional water source. And we've also done preliminary work on some small lakes, approximately midway between the Liard River and Grainger Gap, and we've also found that these lakes are deep enough to likely be considered water sources. But again, we need to do more surveying to verify that.

So at this point those are our kind of expectations of water sources, and we probably will do more work to find additional suitable and acceptable sources between the west and east ends, just so that we can reduce the -- the amount of travel trucks will have to make to collect water from those sources.

THE CHAIRPERSON: Thank you. I'll go back to Parks Canada.
MS. KATHERINE CUMMING: Katherine Cumming. So if I understood correctly, if Mosquito Lake wasn't a viable option, you would either be at Grainger Gap an beyond, or the mine site; that's a long distance in between.

Is that correct, as your water sources?

THE CHAIRPERSON: Thank you. I'll go back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. Yes, that's correct. But as indicated, we have confidence that we will be able to use Mosquito Lake, and we will also be looking to identify other sources between there and Grainger Gap.

THE CHAIRPERSON: Thank you. I'll go back to Parks Canada.

MS. KATHERINE CUMMING: Katherine Cumming. What other sources would those be?

THE CHAIRPERSON: Canadian Zinc...?

MR. DAVID HARPLEY: There are other lakes in the area and also stretches of water that we could either verify their suitability for extraction, based on the water withdrawal protocol. And we might also contemplate doing some fisheries work on some other water bodies in the area to see in fact whether they are fish bearing. Because it may be that there are water bodies
that would not comply with the -- with the withdrawal protocol, DFO's protocol, but they may actually not contain any fish, so on that basis they -- they might be suitable sources.

THE CHAIRPERSON: Okay, thank you. I've got to go back to Parks -- Parks Canada, but before I -- I do that I just want to maybe ask how many more questions you have?

MS. KATHERINE CUMMING: Quite a few, I'm afraid.

THE CHAIRPERSON: Like when you say a few, like give me a number.

MS. KATHERINE CUMMING: Ten (10), twelve (12).

THE CHAIRPERSON: Okay. Well, what we'll do is we'll take a -- we'll take a five (5) minute break. We'll come right back.

--- Upon recessing at 2:27 p.m.

--- Upon resuming at 2:34 p.m.

THE CHAIRPERSON: I'll get everyone to come back in and we can start.

Okay. We're going to continue on. I'm going to ask that Parks Canada, if you take a look at
your ten (10) questions that you counted anyway, and, you know, we'll -- I would like to take a look at what you have that's, you know, relevant to -- to the Hearing today, and -- and if there's something that we need to hear, I'd ask you to, you know, put your questions forward. And I'm -- I'm gonna ask again, just to -- if we could limit, because there's gonna be other opportunities where people are gonna be questioning you as well. So I just want to kind of listen to what you have and let's continue on.

So I'll go back to Parks Canada, Katherine Cumming.

MS. KATHERINE CUMMING: Katherine Cumming. Thank you. Just to clarify, the sort of reason we're asking these questions is that we believe there's a lot of uncertainty with the boa -- with the road and what the road is going to be -- how the road will operate, and how it will be designed. And as a result, it makes us difficult for us to know what will be the impacts on the aquatic life in Mosquito Creek, and the aquatic life or the -- or the ecosystems around Sundog Creek when we don't know where the aggregate sources are coming from. And so that's kind of where we're coming -- but I'll move on to spills.

In your spill report you characterized
kilometre 55 to 83 of the road's grade as gentle. And I went back to the documents from 1980s where is the only information we have on the grades of the road, but there's no information otherwise provided. And in that section there's a grade of thirteen point seven (13.7) which is very high compared to most roads. Can you explain this discrepancy?

THE CHAIRPERSON: Okay. Thank you. I'm going to go to Canadian Zinc.

(BRIEF PAUSE)

MR. DAVID HARPLEY: David Harpley. Can you be more specific; exactly where you're referring to on the road?

THE CHAIRPERSON: Parks Canada...?

MS. KATHERINE CUMMING: Yeah, it's just west of the Tetcela River.

(BRIEF PAUSE)

MR. DAVID HARPLEY: David Harpley. We're not aware of any grade in that area that's that substantial. We -- I think my colleagues can bear me out, but I think our, kind of, premise to looking at --
at the road in general, is we're trying to get grades
down to 11 percent or less everywhere; 8 percent is what
I'm -- I'm told. So I -- I think it's highly unlikely
that there's a 13 percent grade in that particular
location, because it would have come up already and been
flagged and looked at in terms of avoiding it.

THE CHAIRPERSON: Thank you. I'm going
to go back to Parks Canada. Aileen (sic), go on to your
second question.

MS. KATHERINE CUMMING: Thank you.

Katherine Cumming. I guess it -- it may not be that
there's thirteen point seven (13.7), but the only
documented evidence we have of grades shows that there is
a thirteen point seven (13.7) at that -- at that place.

And this is the -- within a kilometre or
so of where the spill occurred in 1981, and so what
mitigation will you be putting in place in this location
to minimize the risk of the spill and the impacts to the
environment?

THE CHAIRPERSON: Thank you, Katherine
Cumming. I'm gonna go back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley.

Firstly, as mentioned, we're not convinced there is that
grade in that location. But in a general sense, as we
described yesterday, we -- we've looked at the road in
total with the -- the best mitigation being to make the road with least grade and avoiding tight turns as a general approach as a way of minimizing the -- the risk for a spill occurring.

And I, you know -- and I can go through the other mitigations that we've considered for spill response, but it starts with a good road built properly, built well, having drivers that know the terrain and drive appropriately for the terrain, having specific speed limits set for all sections of the road, including any areas that either might be susceptible to a spill or wildlife presence, or just a little more difficult terrain. And there's a longer list of other mitigations but I believe that's satisfactory, for the time being.

THE CHAIRPERSON: Thank you. I'm going to go to Parks Canada, Katherine Cumming, for your third question.

MS. KATHERINE CUMMING: Thank you. It's -- I'll turn it over to Mike Suitor at this point.

MR. MICHAEL SUITOR: Thank you. Mike Suitor, Parks Canada.

The Species at Risk Act requires that -- that responsible parties, including both Parks Canada and the Review Board, during an environmental assessment process identify all impacts to listed wildlife species,
identify any mitigations to lessen those impacts, and to
monitor the efficiencies of those mitigations to ensure
the impacts have been lessened. To date, from our
review, Canadian Zinc has done a great job addressing
issues associated with direct mortality impacts; however,
there's a number of other impacts that was identified in
the -- I think it was the February submission from
Canadian Zinc that have yet to be mitigated, or
monitoring associated with it, particularly, speaking to
things like movement barriers as well as the loss of
effective habitat.

What I would like to hear is how Canadian
Zinc would like to propose, within the Wildlife
Management Plan, that they'll address movement barriers
as well as the loss of effective habitat.

THE CHAIRPERSON: Thank you, Mike Suitor.
I'm going to go to Canadian Zinc.

MR. CHRIS SCHMIDT: Could we have
clarification of...

(BRIEF PAUSE)

MR. MICHAEL SUITOR: Oh, I'm sorry, did I
say "bear"? I mean, Mountain Woodland Caribou, is what
I'm speaking to specifically.
(BRIEF PAUSE)

MR. CHRIS SCHMIDT: Mr. Chairman, this is Chris Schmidt. I direct the question to Mike Suitor. Could you please clarify exactly what you were getting at?

MR. MICHAEL SUITOR: Certainly. Within -

- Mike Suitor, Parks Canada.

Within the February submission from Canadian Zinc, several impacts were identified as required through the Species of Risk Act during an environmental assessment process, included in that inclu -- was things like movement barriers as well as the loss of effective habitat. To date I have not seen mitigations that have been suggested to reduce those impacts, nor have I seen monitoring that would address the efficiencies of those mitigations; obviously, because they haven't been suggested.

Could you please outline what you propose or -- or could you point to a place in the document where those mitigations are there, and where monitoring to address those mitigations and -- and ensure the efficiency of them have been identified?

THE CHAIRPERSON: Thank you. Canadian Zinc, I turn it over to you.
MR. CHRIS SCHMIDT: Chris Schmidt. I'm going to refer to the document dated February, 2011 where we outline what the monitoring measures would be and the approaches taken. And from our perspective it's actually quite clear, in terms of what Canadian Zinc has committed to do and how this will be followed up on.

The -- there's -- Section 6.2.1 in the document outlines the responsibilities of the wildlife monitor. And there's subsequent sections that refer to monitoring specifically for Woodland Caribou along the -- the access road. We feel that this level of information and detail that's provided is certainly sufficient at this point in time.

MR. DAVID HARPLEY: It's Dave Harpley. I -- I just want to add this is not my field but I still don't really understand the question. Perhaps Mike can simplify it and condense it.

THE CHAIRPERSON: Thank you. Well, I'm going to go back to Mike Suitor; maybe if -- maybe you could rephrase your question so that Canadian Zinc understands your question.

MR. MICHAEL SUITOR: Mike Suitor, Parks Canada. Perhaps I'll start with one (1) effect, movement barriers. Movement barriers to Mountain Woodland Caribou might include things like high traffic volumes on the
road. We don't have a good sense of the volume of traffic that will be occurring, how will it occur. For example, will be it convoyed? Will it be spaced out evenly? Will it be every fifteen (15) minutes, every hour?

We don't know those details, so we need to sugge -- we need to infer that traffic itself could be a barrier to Woodland Caribou movement so that they can't from Habitat A to Habitat B because they can't cross a road. There could be physical barriers that could occur such as large snowbanks, the way that slash occurs, or it could be spill barr -- or barriers that are placed along the side of the road to deter spills. Those types of details we -- we're not aware of.

And what I'd like to know is what mitigations Canadian Zinc would put in place at this time to ensure that the -- movement can occur for Woodland caribou?

THE CHAIRPERSON: Thank you. Go back to Canadian Zinc. I hope that clarified your response to their question.

Canadian Zinc...?

(BRIEF PAUSE)
MR. CHRIS SCHMIDT: Chris Schmidt. The -
- the measures that Mike Suitor is referring to have been spelled out in the -- in the document that was prepared in February '11.

One (1) of the primary measures would be observations by the -- the truck traffic in terms of where caribou are sighted along the road and to use the precautionary measures in terms of speed restrictions, special measures, including awareness of where the caribou are likely to cross a road. This will certainly be documented during the first year and made readily available. There will be signage. There will be speed restrictions. those kind of measures are fairly standard for -- for haul roads irrespective of -- of the location.

Also with respect to mobility across the road by caribou, we recognize that this is a potential issue and there are measures that will be taken to ensure that lar -- deep snowbanks, along snowbanks are not -- do not encumber caribou movement across a road. So, for example, you can clear snow every hundred metres or 200 metres along the road so that caribou, if they were along the road, could readily escape from the -- from the road base.

With respect to spill structures, we don't see that that is an -- an issue. Yeah, there's a very,
very low probability of spills along this road and we don't see how caribou would be affected in the -- during the winter hauling at all.

MR. DAVID HARPLEY: David Harpley. Just -- just to clarify that last point. I think Mike was talking about spill structures, control structures. Our expectation is that those will be relatively small and confined to the specific locations of a few creeks and certainly not of a size or detail that would impede movement of wildlife.

THE CHAIRPERSON: Thank you. I want to go back to Mike Suitor for your next question, number 4.

MR. MICHAEL SUITOR: Mike Suitor, Parks Canada. Just to clarify one (1) last point there. You did address mitigation such as through snowbanks, however, you have not addressed mitigating traffic volume, which is a major impediment to caribou as documented in the literature. Could you please suggest how you will mitigate the barrier effect caused by high volumes of traffic along the Prairie Creek Road?

THE CHAIRPERSON: Thank you. Back to Canadian Zinc.

(BRIEF PAUSE)
MR. CHRIS SCHMIDT: Chris Schmidt. Given the volume of traffic on the road, we don't see that there would be an issue with respect to -- to caribou being able to move. My understanding is there could be up to thirty (30) or thirty-five (35) trucks per day, which over a twenty-four (24) hour period is not a lot of traffic.

THE CHAIRPERSON: Okay. Thank you. Maybe I'll continue on with Parks Canada. I'm not sure who's doing the next one but that would be your fourth question of the -- coming up. Has that clarified that you -- to your question?

MR. MICHAEL SUITOR: We'll -- we'll move on. I have one (1) more question with --

THE CHAIRPERSON: Okay, go ahead.

MR. MICHAEL SUITOR: -- regard to wildlife.

I would just like -- one (1) of the monitoring that has been suggested by Canadian Zinc is the use of sightings to -- to monitor wildlife populations and the effect of impacts.

I would just like Canadian Zinc to explain how, noting a decline in sightings along the road, how you would actually go about interpreting this information and explaining what sorts of thresholds would be used to
actually alter management of the road and mitigations as needed?

THE CHAIRPERSON: Thank you. Canadian Zinc...?

(BRIEF PAUSE)

MR. CHRIS SCHMIDT: Chris Schmidt. With respect to proximity of an observation point by a vehicle driver to caribou, we suggest and it has been brought forward that 50 metres would be an appropriate distance for -- for extra caution.

And again, the -- the amount of information that's going to be gathered during the first year of operation will really help in terms of identifying where those potential crossing areas are. And again, when caribou are sighted along the road the drivers are going to take a lot of precautions because they have no -- no interest in -- in having any kind of an incident themselves.

So we really don't see that this is going to be any kind of a substantial issue given the volume of traffic and the speed restrictions that will be in place.

THE CHAIRPERSON: Thank you. Go back to Parks Canada. Mike Suitor...?
MR. MICHAEL SUITOR: I'll just follow-up quickly on that. I -- I don't know if that answer actually addressed the question. Perhaps I'll take a different stab at it here.

Several -- there's several impacts that have been identified to various wildlife species, in particular, Woodland caribou along the road. The mitigations that have been suggested to date are mitigations that might be effective for direct mortality, which is one (1) impact. However, there's several other impacts that might occur. The result of those impacts often are change in abundance or distribution of animals.

What I would like to understand is how sightings along the road will help with our understanding of a change in distribution or a change in abundance. And if we did notice a difference in sightings how would that actually inform adaptive management as suggested by Canadian Zinc?

THE CHAIRPERSON: Thank you. I'm going to go back to Canadian Zinc.

MR. DAVID HARPLEY: It's Dave Harpley. I -- I believe this is an issue that we will return to when GNWT make their presentation as well, but from my kind of non-wildlife background my expectation is -- or at least my knowledge is that the primary areas of cari --
Woodland caribou accumulation, if I can say that, in the region are to the north of the mine and also of the mine itself and also to the north of the winter road in the mountainous areas.

Evidently, there is some crossing of the winter road but it seems from the occupancy map that we've generated that caribou tend to inhabit and stay mostly to the north of the road area, at least for the most part once you start moving east out of the Prairie Creek Valley.

As far as adaptation is concerned, our main adaptation strategy is, as Chris has mentioned, firstly to have a protocol for drivers so that we allow animals to cross the road or to move away from the road when in proximity to approaching trucks. And -- and we've basically included a commitment for the traffic to stop if animals are either on or close to the roadway until they move away.

In terms of whether this data -- sightings data would affect distribution of caribou, well truck traffic is, I would assume, just one (1) potential variable on what might affect caribou distribution. There could be all sorts of other reasons why caribou distributions would change. So from that perspective I'm -- I'm not sure how we can directly correlate other means
of sighting and monitoring to caribou behaviour.

THE CHAIRPERSON: Okay. Thank you. I'm going to go back to Parks Canada, Mike Suitor. Oh, sorry, Katherine Cumming.

MS. KATHERINE CUMMING: Katherine Cumming. Thanks. Thanks, I'll move now to the mine site and to water.

In Parks Canada's scoping submission we provided an operational description of ecological integrity, which is based on the Canada National Parks Act. And this was reflected in the terms of reference for the environmental assessment.

So can you describe how your site specific water quality objectives relate to this description?

THE CHAIRPERSON: Thank you, Katherine Cumming. Canadian Zinc...?

MR. DAVID HARPLEY: David Harpley. In the presentation I made this morning there were some parameters that I indicated that we did use the reference condition approach, which is an indication of background variability, and I believe this would be consistent with objectives based on either RCA and/or a toxicity-based approach, which is intend -- intended to avoid significant impacts. Whether or not all of those agree with your definition of ecological integrity, I'm not
THE CHAIRPERSON: Thank you. I'm going to go to Katherine Cumming, Parks Canada.

MS. KATHERINE CUMMING: Katherine Cumming, Parks Canada. What would be the impact on the aquatic ecosystem of using your site specific water quality objectives?

Because my understanding of some of the bar graphs is that many of the bar graphs are based on lethal, what's gonna kill something, as opposed to other impacts as well. So can you describe the impacts on the ecosystem as a whole from your objectives?

THE CHAIRPERSON: Thank you. I'm going to go Canadian Zinc.

(BRIEF PAUSE)

MR. JOHN WILCOCKSON: John Wilcockson with Hatfield. The answer is yes, we've -- we've used both RCA approach, where we can, as well as toxicity-based approach.

The toxicity-based approach is often based on the CCME used, the CCME value. And the CCME state that this value is intended to be protective of all life stages of all organisms living within Canada. And
through discussions with various parties in April, there
is some concern that northern species were not
sufficiently shown in those distributions that were used
to derive the toxicity-based thresholds.

So what we did is we -- we did two (2) things. We -- we took fish species that we knew were
likely to be found within the creek and we found toxicity
data for those fish species. And we showed them in
relation to the CCME or other toxicity-based guidelines
we used. We also looked at invertebrate species that
would likely -- or invertebrate taxa that would likely be
in -- in the same creek, in a fast, cold creek. And
those would be things like mayflies, stoneflies, and
caddisflies and -- and black flies. So we -- we -- into
the mix we also threw in toxicity data for those species.

One thing also I should mention, in some
cases it does look like the -- the threshold of toxicity
is close to -- to the guideline or the objective that
we've chosen. I'll just wait a second while they close
the door.

(BRIEF PAUSE)

MR. JOHN WILCOCKSON: But also we --
we've shown that in a number of cases the -- the toxicity
is mitigated by hardness, and the water at Prairie Creek
is -- has a high hardness and that will mitigate toxicity
for metals such as copper, and zinc, and cadmium. And I
think I've answered the question.

THE CHAIRPERSON: Okay. Thank you.
We'll go back to Parks Canada, Katherine Cummings. If I
recall now this is your question number 7.

MS. KATHERINE CUMMING: And you might be
happy to know that I'm not going to ask any more
questions.

THE CHAIRPERSON: Okay. Thank you. What
I'll do is we'll take a ten (10) minute break and we'll
come back with questions.

--- Upon recessing at 3:01 p.m.

--- Upon resuming at 3:17 p.m.

THE CHAIRPERSON: Can I get everybody to
take their seats. I -- we still got a list of people to
do questions that's going to -- for Canadian Zinc. But
before I do that I -- I've been waiting for a time to get
the host Chief from Liidlii Kue First Nation to come up
to make a statement, and also the Dehcho Grand Chief, but
we're running a little bit behind time here, so I thought
maybe this would be a good opportunity for -- for the two
(2) Chiefs to come to the table up here to join us and --
and make your statements.

Chief Jim Antoine and Grand Chief Sam Gargan. And I'll turn the mics over to them then I'll go
back to the questioning again. So I'm going to go to the
host Chief, Jim Antoine.

REMARKS BY CHIEF JIM ANTOINE:

CHIEF JIM ANTOINE: Thank you, Mr. Chair,
and Board members, and Canadian Zinc, and everybody out
there, the different MLAs and different dignitaries
representative of different communities, and everybody
there.

(INTERRUPTED FROM SOUTH SLAVEY INTO ENGLISH)

CHIEF JIM ANTOINE: The Canadian Zinc --
LKFN recently signed an IBA with Canadian Zinc for the
Prairie Creek Mine Project and is here today to express
its support of Canadian Zinc's Prairie Creek Mine
Project. LKFN represent twelve hundred (1,200) plus
members as a mandate to facilitate responsible
development in the region so as to create employment
business opportunities to the membership.

Canadian Zinc project is currently the
only project in the Dehcho which has advanced to this stage. You need location within national region. Liidlii Kue has a good working relationship with Canadian Zinc and anticipates that with regulatory approval the project, the economic development, and related activities would prove to -- beneficial for the region as a whole.

LKFN is confident that it would be in the position to capitalize on development of the project for the benefit of its membership with Fort Simpson. As a regional hub, there be a direct economic benefits to all in the forms of sustainable and opportunity to participate in various business ventures which directly supports the mine operation.

The challenges that sustainable development require -- and then the challenges of sustainable development require there be a recognition of economic, environmental, and social health and development, take those three (3) factors into prime consideration in development of this project.

LKFN is satisfied with Canadian Zinc has taken all necessary step to succeed with the project on a sustainable basis and stands to ensure that there's a good and effective community development. Environmental monitor is a key component of the IBA agreement between
Canadian Zinc and LKFN and this monitor continue for the life of the project. Environmental monitoring is a key component of the IBA agreement between Canadian Zinc and LKFN, this monitoring continue for the project (sic) of this project. Training and employment opportunities will meet the needs of our youth, and the economic development opportunities will ultimately lead to individual's self-sufficient.

We represent so many people in this Community. What we're working on is in Fort Simpson we know that there's going to be changes in our land. It's not in -- it's not like in the past. There are a lot of resources in our land. In the mountains they want to start a mine that we know that there's going to be changes in the land. And we have to really take care of our wat -- land and water.

So -- so we are -- we have a lot of concern about that. So as a result, it'll be work developing out of that and there will also be businesses. So we sign a document with them. So we've been working with them for a while. They -- today -- today Canadian Zinc is the only mine in our region so if they begin then -- then it'll open the rest for development so we are -- we are working cooperatively with them. And they -- they work on whatever we recommend and we've sign an IBA with
Nahanni -- Nahanni Butte will be the primary group with the -- with them because the mine is close to their Community. So we -- in -- in Fort Simpson we are quite a ways but in the past our -- our -- our people -- our people lived off the land at Nahanni -- North Nahanni and Ram River and people had lived there. So we are quite concerned about that. So, as a result, we want to benefit from this development. So, as a result, we signed IBA with Canadian Zinc.

(INTERPRETATION CONCLUDED)

CHIEF JIM ANTOINE: I just wanted to say a few words in English. Just a few points, is that the Liidlii Kue First Nation, we represent about twelve hundred (1200) plus members and we have a mandate to facilitate responsible development in the region so as to create employment and business opportunities for our membership.

And we want to go after any opportunities to create jobs for our people. People want to put food on the table. People want to buy things that they would like, they would want, as well as the business opportunities. Liidlii Kue First Nation we have our own
company called Nogha Enterprise and we are currently trying to get that pretty well organized. We have our own members who have their own businesses that want to benefit from economic development as well.

So the -- they recently signed Impact and Benefits Agreement last week on June 16th with Canadian Zinc and -- and we're here to express our support for the Canadian Zinc Prairie Creek Mine Project. The project is currently the only project in the Dehcho which has advanced to this stage. And we as Liidlii Kue First Nation have a -- a good working relationship with the Canadian Zinc Company and anticipate that with the regulatory approval of the project, economic development and related activities would prove to be beneficial for the region as a whole.

And we, Liidlii Kue First Nation, is confident that it will be in the position to capitalize on the development of projects for the benefit of our membership. Fort Simpson is our regional hub, and there will be direct economic benefits to all in the form of sustainable employment and opportunities to participate in various business ventures which directly support the mine operations. The challenges, which we're hearing lots of it today, of sustainable development require that there'll be recognition of economic and environmental and
social health, and that the developer take those three
(3) factors into prime consideration in the development
of this project.

There is a lot of discussion, questions
about water. We have -- we had serious concern about
water quality and we are very -- still very concerned
about it. The big factor in the early days of this mine
was the amount of arsenic that was stored by previous
owners at the mine site and which was taken out with a
plane, I believe it was 2008.

And we all sigh of relief here in Fort
Simpson because the -- the river that flows by Prairie
Creek eventually flows by us here in Fort Simpson, so
we're all -- we're very concerned about -- about that.
That was taken care of it.

On the environmental issue, we're hearing
a lot of detailed questions by INAC and other groups
about how and -- how they're going to use the water,
what's going to be in it, and what the mitigating effect
of what eventually ends back in the water is. I know, I
think that INAC and Parks Canada and -- and -- are ver --
are doing a lot of work in trying to get to the detailed
questions.

I'm not trained in hydrology or -- or any
of these, you know, the -- you know, the whole thing
about metals in the water and so forth. The -- the 
common sense is that -- I just heard earlier that there 
was different methods of putting water back into the 
creek. But, at the end of the day, is that the water 
does end up in -- in -- in the creek. How you put it 
back is -- is a question, you know, so.

And the water then will be mixed into the 
river -- a hundred yards down the river, 200 yards down 
the river. But what kind of effect that water is going 
to have, I think INAC and Parks are doing a good job in 
trying to get all the details of it.

For us here in Fort Simpson, we continue 
to be very concerned of the water, not only from the 
mine, but the whole Liard River system, where it comes 
from -- the Mackenzie River system where it comes from. 
So we are looking here on the bigger picture of the water 
quality. But this is the first mine in our region, and 
we've got to do it right because usually when that 
happens, one (1) goes ahead, then there's precedent set. 
So I think the amount of questioning that is being done 
here is -- is appropriate to try to get -- make sure we 
do it right in the first place.

So there are challenges of sustainable 
development here, and on the social/health side, today 
when I asked close friends of mine about the mine, right
away they said, Okay. A lot of people go to work in the
mine and then they come back to Simpson. What's going to
happen in the social environment. There's going to be an
impact. Whenever a mine comes in, it's change.

And I've been around long enough to know
that whenever you do something different, it creates
change. And you try to figure out all the answers ahead
of time, there's always going to be something that's
going to come around here because there's -- and change
there's always unanticipated followed from -- from
change. So the whole process here, there's a lot of the
learned people here that have gone through a lot of
experiences here.

So I'm -- I'm pretty sure you know what
I'm talking about to try to capture all that stuff that -
- that maybe get by us here. But there is definitely a
lot of change going to happen and the challenge here
today is to take all those factors into prime
consideration in development of this project.

The Liidlii Kue First Nation is -- is
satisfied that Canadian Zinc has been taking necessary
steps to succeed with their project on a sustainable
basis and has been ensuring us that there was good and
effective Community involvement up to this stage and has
planned for the effective continuation of this Community
involvement as the project develops. So as the Liidlii Kue First Nation, we have had a very good working relationship with them and there's no time where we were left out or bypassed. We -- we feel that we have been engaged fairly well.

Environmental monitoring is a key component of the Impact and Benefit Agreement between Canadian Zinc and Liidlii Kue First Nation. And this monitoring will continue for the -- the life of the project. At this stage they -- they say it's fourteen (14) years and that -- that the -- the project is in but the -- the different studies that I'm hearing it's going to be longer than that.

Training and employment will meet the needs of our youth and the economic development opportunities will ultimately lead to individual self-sufficiency.

And as the Chief here in Liidlii Kue First Nation and with the Council, we discussed this whole aspect of weighing things as leaders in the Community and -- and we have to weigh all aspect of anything that is new, anything that has been proposed. And in this case, the decision of the Council was to go ahead and make this Impact and Benefits Agreement. We've been working on it for a couple of years, and we've reached a point where we
feel that it's -- it's good enough for us and we just
need to do a lot of work internally ourselves to get
ready for it. So we have a lot of work cut out for
ourselves to try to benefit from -- from this agreement.

So the Liidlii Kue First Nations and
Canadian Zinc have agreed to develop a liaison committee
which will aid both parties, and to the sharing of
information and resources throughout the life of this
project.

A project such as the Prairie Creek mine
will become a catalyst for meaningful and responsible
economic development in the region and will provide the
necessary job, business contracts and other spinoffs to
the -- the direct benefit of the Liidlii Kue First Nation
membership and other citizens of this region.

We have a lot of members and in any -- in
any type of a decision there is always is going to be a
certain factor that will -- will question our decision,
but the Council had said that we're doing this for the
future generations. We have to -- we saying that we're -
we have been asking and we have a good education
system.

We've been educating a lot of our children
and encourage them to go to school and so forth. But
here in Fort Simpson there's only a certain amount of
good jobs and a lot of it is government. And the people
who are working there aren't going to leave very soon, so
-- and -- and as Liidlii Kue First Nations we -- through
our -- our business arm we have been -- we have been
trying to get ourselves organized.

And we have a certain amount of projects
now on the go. So in a town like this we -- it's about
twelve hundred (1,200) people, we -- we employ currently
about sixty-four (64) people on our payroll, on our
business. We're the second biggest, you know, payroll in
town here, after the Government of Northwest Territories,
and we want to keep growing in that direction.

And this -- this mine here is the -- the
only economic opportunity that we're directly involved
with that -- what the IBA will allow us to -- to go in
that direction. So I just want to -- to say that we are
in a position today we -- where we're meaningfully
engaged.

In the past we have always been bypassed
and ignored and were not even involved in any development
that happens in our region, but with Canadian Zinc
hopefully is the beginning of Aboriginal people's
involvement in -- in any kind of business development in
the future, in other mines or if we -- if there's any
other kind of development in this area this is the way it
has to be from now on. So I just wanted to say that in -
- in closing. Mahsi.

THE CHAIRPERSON: Thank you, Chief Jim
Antoine for Liidlii Kue First Nation. Mahsi for your
statement.

I'm going to go to the Dehcho Grand Chief,
Sam Gar -- Gargan for his statement as well.

(INTERPRETATION FROM SOUTH SLAVEY INTO ENGLISH)

REMARKS BY GRAND CHIEF SAM GARGAN:

GRAND CHIEF SAM GARGAN: Thank you, Richard. So -- so for the Dehcho Region this will be the
first -- this would be the first time how we're gonna
begin development on our land like mining. We're going
to come up with a position, so that position that comes
up will be important for us now and in the future.
Whatever we say -- whatever we say today will affect what
happens tomorrow, that's where it's developing to.
Whatever Canadian -- whatever Canadian -- Canadian Zinc -
- we're not gonna say yes, and we're not gonna refuse
them.

However, if I'm sitting here I represent
ten (10) Communities. I represent about -- about five
thousand (5,000) people. So what -- what animals and
creatures are on the land, and wildlife, these are we --
we're also responsible for that. Whatever -- whatever
swims and lives in the water we also have to take care of
the -- that. And the land -- the land, we have to take
care of that's before us.

Now the department at DIAND, they -- they
have questioned a lot of things. They seem to be
questioning Canadian Zinc a lot about the different --
the different concerns. So cana -- so Canadian -- so
Canadian Zinc has a lot of -- a lot of things presented
and Indian Affairs are quite -- quite concerned about
things.

Also, I'm gonna say it in English.

(INTERPRETATION CONCLUDED)

GRAND CHIEF SAM GARGAN: I want to, first
of all, compliment DIAND. Okay, Aboriginal Affairs and
Northern Development. Now, the term itself, if you -- if
you say it in my language, okay, it is AAND, okay? So
it's just like saying, wish, wish -- wish, wish, I say
(phonetic), see. So DIAND -- or Indian and Aboriginal
Affairs is now for us in our own language is wish, wish,
I say. So here I have wish, wish, I say.

But the Department has done a really good
job in having Canadian Zinc accountable for its
development. And the job was done so well that we really
don't have issues with the project going ahead.

However, the main issue that we have here
today is with regard to the value of the Nahanni Park
expansion and what it represents in -- in the world
community. This is a pristine area to which a little
mine's going to be built, a mine that can still have an
impact on the quality of our water, the fish living in
our water, and the wildlife that lives around that area.

So the questions that have been asked so
far between DIAND and Canadian Zinc has really not been
quite addressed yet. We still have issues with that, but
we also have -- we know that once this hearing is over
there will be another hearing on water licence too. So
there are avenues in which if we don't -- or we might
have missed it, we will bring it up because, first of
all, we have a duty to our people. And that duty is to
protect our environment and the integrity of the land.
That's our first duty.

We also need to find out from the Company
if there is any kind of baseline study that has been
done, because according to the -- according to the -- to
the way Canadian Zinc has conducted itself, it looks like
there has been lessons learned from the tar sands, maybe
even lessons learned from the Cantung Mine. Cantung is
accumulating a lot of tailings that just keeps building
up, we have issues with that, but their water licence is
coming up pretty soon too.

We also have issues with regard to the oil
spill that happened at Little Buffalo (phonetic) in here.
We also have legislation that we can use to challenge the
project at any time. And -- and one (1) is the species
at risk legislation. So there are ways of doing it.

But more importantly we want to have an
independent robust biweekly monitoring system. In other
words, we have to be able to -- to determine in -- in the
next -- in the first two (2) years if the quality of our
water is going to be going down, up, or remain the same,
or whatever the case may be.

And I want to say that I appreciate
Canadian Zinc's commitment in ensuring that -- that
everything that they do takes into that consideration. I
appreciate that. We still don't know it may be, you
know, like the sediment buildup would affect the water,
or the oxygen level in the water. So again too, these
are the type of things that I want to know a bit more
about if they haven't answered it yet.

The other thing too is that we do have
like spawning areas, migration areas. I don't know how
much of that has been done because, again, when you have
fish spawn, the vulnerability is after the spawning. So
exactly what -- what do we have by way of answers to --
to that. Because again, cumulative effect will affect
that too. And we know from other -- other experiences
about -- about birth defects you have. So that is
another one (1) of those issues that we wanted to make
sure that -- that -- that is answered.

And also the integrity of the -- of the
wildlife and the -- and the -- and the fish. What we
learn from the tar sands is that -- is that fish in the --
in the Athabasca Lake are sort of like mushy, no -- no
texture. And -- and we know that -- and we know that and
it was -- it was not that way before. I'm not blaming
the tar sands, but something caused those fish to become
mushy, you know, you can't even split the meat to eat it
anymore, so the texture of wildlife has to be examined on
-- on a periodic basis because even wildlife meat when it
become squishy you can hear it, that noise. That means
that there is an issue here regarding that.

And also we are here today because of two
(2) court cases that occurred, one (1) that's called the
Sparrow case. And in the Sparrow case it was telling the
government and industry that you cannot ignore Section 35
rights.
In the Delcomuna (phonetic) case the Supreme Court ruled that you have to talk to the Aboriginal people, consult with them. And if the -- that -- that result that the governments have to continue to consult on major development that impacts First Nations. And they've got to have a say in determining the type of direction that industry will go. Yeah. So I'm here to represent the Aboriginal and treaty rights of the Dehcho First Nations people in the valley.

Also, because this is the first time that a mining environmental assessment is occurring in the Dehcho, we have to make sure that we set the tone right right off the bat. We have some -- some -- some good news regarding like our protected area strategy, but we also have some bad news regarding the type of contributions that we have with government on our Dehcho process because maybe perhaps Canadian Zinc can share some revenues with us, but -- but we -- we are cut back a bit on our -- on our process.

And that in itself affects the type of developments that will occur in our region because the good news is that we now have a protected area, the land withdrawals are still protected, there is still no development. And Canadian Zinc had that establishment long before the Dehcho decided on it going the route of
negotiations.

But appreciate that that -- that everything that has been done up to this point the Dehcho First Nations really haven't got nothing to challenge them on because the environmental issue has been addressed quite extensively and it has met the expectations of our -- our member Community, so.

So that's my presentation. It's more that -- that further discussions if -- if it occurs it probably will occur in one (1) of the hearings. If not then -- then that -- this is what the Dehcho First Nations has to say for now. Mahsi cho.

THE CHAIRPERSON: Thank you, Grand Chief Sam Gargan. And Liidlii Kue First Nation Chief Jim Antoine for your statements. Mahsi. You've read those statements and as you know that's going to be on record and it's going to be part of our process when we deliberate and when we made our decision.

So I just want to say Mahsi, and it's actually a great pleasure to come to this region and to really do our first public hearing here on environmental assessment on your first diamond mine, so it's really good that we -- we come here and do that.

So with that I want to say thank you very much for your time. And we're going to be here probably
late this evening, and also probably will be tomorrow, so feel free to come back and if you -- you know, we have people here from Liidlii Kue First Nation and Dehcho First Nation as well here representing you guys here in our questioning period as well. So I want to say thank you very much. Mahsi.

(BRIEF PAUSE)

QUESTION PERIOD CONTINUED:

THE CHAIRPERSON: Okay. We'll continue on now. With the questions to Canadian Zinc where we left off is that next is on the list is any questions from the Dehcho First Nation to Canadian Zinc Corporation on their presentation made this morning. I believe Joe Acorn is here to do -- speak on behalf of Dehcho First Nation.

MR. JOE ACORN: Yes, thank you. It's Joe Acorn for DFN.

As Grand Chief Gargan just said, we've been quite happy and pleased with the focus and effort and level of direction the government departments have taken, particularly Parks and DIAND. So we're just sort of piggy-backing with them on the water issues.

But I do have a question regarding the
roads. In the original applications and in the developers assessment report Canadian Zinc talked about the number of truck trips that would be needed each day and the length of the season that would be required to get all the ore out and get all the supplies in.

And I look at the commitments that have been made over the course of this EA that really have the effect of slowing down traffic on the road such as stopping for wildlife, putting chains on the trucks, having rest stops for the -- for the drivers, having very low speed limits in areas that are a higher risk for oil spills.

So what I'm wondering, and what I would like to see is an updated evaluation of the transportation needs of Canadian Zinc on the winter road with regards to the number of trucks, the number of trips per day, and the length of the season. Because if you look at what DIAND's recommending, the impression I get is that there -- going to be a shorter season both on the front end and on the back end.

So I'm wondering if -- does your original assessment of your transportation needs still stand in light of all the commitments and recommendations that have been made? Or do you need to have an updated evaluation of what your transportation needs are and what
Because my concern is that we're gonna get into a bit of a -- a mitigation and impact spiral.
Because if you have to put more trucks on the road, then there's more mare -- wear and tear on the road, more water needed, and then more inter -- more interaction with wildlife.

THE CHAIRPERSON: Thank you, Mr. Acorn from Dehcho First Nation. I'm gonna go to Canadian Zinc.

(BRIEF PAUSE)

MR. BYARD MACLEAN: Byard MacLean. The -- the transportation study that is currently in the public domain was designed with two (2) areas of conservatism. The first one was the speed, and the second one was the load size. And because we knew that going forward there would be some things that we would come across that we might have to mitigate, but we wanted to keep the size of the -- the fleet down as much as possible.

So I -- I don't think that we need to go back and -- and re-state the transportation -- the fleet size, but I think it's -- would be -- would be a good thing for me to do.
MR. JOE ACORN: Could I get that as a commitment to update your transportation needs assessment then, with the details such as, specific speed limits for all sections of the road, number of rest stops, number of hours per truck driver per day, that kind of stuff? Because I really didn't see those kind of details in the original report that you guys had filed.

THE CHAIRPERSON: Okay. Thank you, Mr. Acorn. Maybe just before we go to Canadian Zinc, maybe if we can just -- so that -- we have our translators up there, maybe we could slow down just a bit.

And I want to go back to Canadian Zinc.

MR. BYARD MACLEAN: At this stage, we -- I -- we still think we have enough conservatism built into the model, but the -- the detail of where our pullouts are going to be, that information just simply isn't available right now. And once we've got a better handle on -- on the on the ground direction of where the roads are we can move the -- the -- you know, we're -- we're basically waiting for the -- the ongoing studies of -- of where the road is sensi -- sensitive so we can drop the speeds down to 10 or 15 miles an hour. So we just don't have that level of detail now.

MR. JOE ACORN: Okay. Joe Acorn. But it's not just the speeds that -- that are on the road,
but I mean, it's even the -- the length of the winter season. Because if I look at the recommendations that are being put forward by DIAND regarding temperature monitoring, the effect that I see is that you're going to lose time at the beginning of the season and you're also going to lose time at the end of the season. So you're going to have a compressed winter road period to get everything out and everything in. So it's not just the speed limits, but it's also the length of the season itself.

THE CHAIRPERSON: Thank you. Canadian Zinc...?

MR. BYARD MACLEAN: Byard Maclean. The -- the window for transportation was developed on the basis of thirty (30) years worth of data which gave us the construction window and the operating window. And the most interesting thing about the data is it's -- it's very tight.

There -- the -- the distance between when the road's available and when it's not available, when it opens and closes is within about a week. And so we have designed a system, we've been in touch with the Department of Highways, we've taken advice from a number of people, and then we have shrunk the window by about seven (7) to ten (10) days and said we -- and -- and so
that's our contingency.

So what we have had -- because it's not --
the road is so important to get the tonnage out and to
get the supplies in that we designed a system that had --
we had a -- a -- a -- a operating window that is
conservative and based on thirty (30) years worth of
data.

And if we have to si -- the -- the
contingency is if the road closes early we may have to
add trucks. That's how we would mitigate the problem.
But the core fleet and tonnage going in and tonnage going
out is based upon average lower speeds that we think we
can maintain, the length of the road, and thirty (30)
years worth of data on the operating window. So I think
it's a conservative plan.

MR. JOE ACORN: I just -- you may have
thirty (30) years worth of data, but you don't have
thirty (30) years worth of data operating within a park.
And I think what we're seeing here is that the standard
is being raised here as for the operation of the road as
compared to what it used to be.

And if you look at the recommendations
being put forward by Parks and DIAND, I don't think the
way this road was operated thirty (30) years ago is going
to be the way the road is operated now.
So I don't think I would share that --
your opinion that that thirty (30) years of data has the
same validity that it does now. So I -- I would -- so
repeating my first question then is I -- I would still
like to see an updated evaluation of your transportation
needs that provides all the details behind it including
your contingencies and your calculations and things like
that because I haven't seen that on the record yet.

THE CHAIRPERSON: Okay. Maybe -- maybe,
again, Joe, if you could slow down a bit, also maybe
speak through the Chair. And I'm not sure how many
questions you have left, but --

MR. JOE ACORN: No, that's it.

THE CHAIRPERSON: Okay. Thank you. I'm
going to go to Canadian Zinc in response to Joe's
questions.

MR. BYARD MACLEAN: The thirty (30) years
or the data -- first of all, none of the design is based
upon the two (2) years the road was open because the road
was open as a tote road basically, to bring in supplies
and equipment so they could construct the mine, so they
were under no illusions of having to bring any
concentrate out.

The -- the road operating conditions are
based upon data from other winter roads, how they are
operated in terms of their speeds. The thirty (30) years worth of data I'm talking about is the opening and closing of the ice bridge. So -- so it's not designed in any way, shape, or form on the two (2) trips that they came in. It's based upon how one would reasonably operate a winter road in the Northwest Territories. And those are the assumptions that we used in the design basis.

MR. JOE ACORN: Just one (1) follow-up then, I guess.

THE CHAIRPERSON: Oh, excuse me for a second. Okay. I just want to make sure, Joe, if you can speak through the Chair.

MR. JOE ACORN: Okay.


MR. JOE ACORN: Well, just, I guess one (1) follow-up then is: Will you, or are you refusing to update your transportation needs assessment for this environmental assessment?

THE CHAIRPERSON: Okay. Thank you, Joe.

MR. BYARD MACLEAN: Yeah, we'll agree to that.
--- UNDERTAKING NO. 2: For Canadian Zinc to update
their transportation needs
assessment for this
environmental assessment by
July 8th, 4 p.m.

THE CHAIRPERSON: Thank you. If there's
no further questions from Joe, I'm going to continue on.
We have Environment Canada. Maybe just -- with just the
remaining presenters here, we -- again, we've got
translators here, so maybe if we could slow down just on
our presentation or questions. Thank you.

I'm gonna go to Environment Canada.

MS. ANNE WILSON: Thank you, Mr. Chairman.

My name is Anne Wilson, I work with Environment Canada.
I have two (2) questions for Canadian Zinc, both water
related.

The first one is that a good understanding
of the water quality is needed if the load based approach
to managing your effluent is going to be used, and if
we're going to revisit the site specific water quality
objectives as suggested by INAC. At this time we don't
have enough under-ice water quality data. I think we've
got five (5) data points, one (1) a year for five (5)
years. In addition, the mercury analysis using low
detection limits is lacking.

How does Canadian Zinc plan to address the data gaps?

THE CHAIRPERSON: Okay. Before I go to Canadian Zinc, there was a -- a question put forward by Joe Acorn for the Dehcho First Nation, I believe for an undertaking. So I want to come back to that first. And I guess to take a look at a timeline, try to agree on a date to get that information so we could take a look on making a decision on that, so.

MR. DAVID HARPLEY: David Harpley. I think two (2) weeks would be sufficient.

THE CHAIRPERSON: Okay. So just so we're clear -- so, the Canadian Zinc will provide this information, you say in two (2) weeks, so maybe if I could suggest maybe July -- July 8th, 4:00 p.m.

Would that be sufficient time, Canadian Zinc?

MR. DAVID HARPLEY: David Harpley. That's fine.

THE CHAIRPERSON: Okay. Thank you very much. And we'll continue on with your -- your response to Environment Canada's question. Back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. There was two (2) questions. I'll deal with the first one and,
John, next to me will deal with the second one.

Regarding the under-ice winter data, we feel that we've collected a -- a fairly good data base of information. Certainly the -- the data base we have for this project is a lot more extensive, both in content and in total time frame, than I'm personally -- in my experience, is available for most projects. So I think we have a pretty good data base to start with there.

There are always some issues with data. We would always like more data as scientists, but I think we -- we work with what we have.

To my way of thinking the way to address the -- the winter data issue is from a significance perspective. And what I mean by that is our Water Management Plan -- I said earlier that the plan for processed water is to minimize the discharge in winter and in fact, not discharge it all during the months of February and March. And then mine water is also a reduced discharge in winter, but there still will be some discharge in every month.

And the toxicity information we have for the mine water indicates that it has very little, if any, toxicity. So I guess we feel the -- the risks posed by the discharge are a lot less as a result, and that needs to be taken into consideration when you consider the --
the baseline data we have for the winter period.

I'll let John answer the second question on mercury.

**MR. JOHN WILCOCKSON:** Mr. Chairman, John Wilcockson. Regarding the mercury, yes, the detection limits to date have been fairly high. And we've recently collected a sample using ultra-trace analysis of mercury in it. It provides us with a detection limit that's one twentieth (1/20) of what has been used in the past and it's Canadian Zinc's plan to continue to collect more data at this lower concentration, a lower detection limit, so we have a better idea of -- of what the concentration of mercury is. And a recent -- recent measurement was 2 nanograms per litre, approximately. So it was measurable.

**THE CHAIRPERSON:** Thank you. I'm going to go back to Environment Canada to your second question.

**MS. ANNE WILSON:** Thank you, Mr. Chairman, it's Anne Wilson. I'd like to just finish with the first question a little bit more. With respect to having good winter data, my concern is that if we're going to revisit the water quality objectives, the winter is not well characterized. From the five (5) samples we do have that were taken in February and March, we can see that the concentrations of various parameters are higher
How are we going to weight the data so that the numerous summer samples are given the same weight as the few winter samples so that we aren't using a skewed data set?

THE CHAIRPERSON: Thank you very much for your question to Canadian Zinc.

(BRIEF PAUSE)

MR. JOHN WILCOCKSON: Mr. Chairman, John Wilcockson. I -- I had a -- a brief look at the dataset and I divided the different chemical parameters out for each month and looked at median concentrations where I could measure them, where I could -- where I could calculate medians.

There were cases where concentrations were higher in winter. There was also cases where it appeared to be lower. It wasn't, from my review anyway, consistently higher. But I -- I think that this is something that could be looked at more in the future. I think that probably a -- a median is a best -- one (1) of the better ways of -- of measuring a central tendency for measurements of water quality and throughout the different seasons.
THE CHAIRPERSON: Okay. Thank you. I'm going to go back to Environment Canada, Anne Wilson.

MS. ANNE WILSON: Okay. Thank you. It's Anne Wilson. Just to close this off, will Canadian Zinc collect further water quality data for upstream under ice in order to manage loads in winter? And I think I know the answer to this from what you said previously, but I want to get this on the record.

THE CHAIRPERSON: Thank you. Canadian Zinc...?

MR. DAVID HARPLEY: David Harpley. I guess I would be interested in understanding which parameters were of primary concern. We're obviously open to looking at an issue, whether it be a specific parameter or more, and considering what is the right approach for it. We certainly have tried to craft our Water Management Plan specifically to deal with the winter period. To be honest, Anne, I can't off the top of my head pin down exactly what you're thinking or referring to in terms of commitment.

We're constantly collecting information and, you know, quite conceivably we would be collecting additional information. Currently the -- the project being in a -- in a kind of care and maintenance state and ongoing exploration, the project typi -- typically isn't
open over the winter period. So it is a bit of a major
trip to go and collect winter data. It's always
possible, obviously. We could look at doing that
independently, or in collaboration with other parties.

If you were thinking more in terms of a
commitment moving into operations or even during, then
obviously we're there on site and that would be easy to
do. And I certainly wouldn't have a commitment to -- to
doing the sampling then as well, but I'm not entirely
certain that's what you had in mind.

THE CHAIRPERSON: Thank you. Maybe I'll
go back to Environment Canada. And, Anne Wilson, maybe
if you could by -- provide a little bit more clarity on
that.

MS. ANNE WILSON: Thank you, Mr.
Chairman. Anne Wilson here. My two (2) concerns are
that there may not be strong enough data to proceed with
a load-based proposal for managing effluent quality.
That type of data could be gathered during construction
prior to actual release to ensure you have a good
understanding in order to manage the blending of the
effluent.

The second need for data is a little more
pressing in that if we are going to revisit the site
specific water quality objectives, do we have a good
understanding of the regional reference condition for the 
upstream area of that creek. And I don't believe we do 
for some of the under-ice stuff, so I'll leave it at 
that. Thanks.

THE CHAIRPERSON: Okay. Thank you.

Maybe I'll go back to Canadian Zinc for a response.

MR. DAVID HARPLEY: Okay. David Harpley.

The -- the first part, yes, I don't think we have a 
problem with a commitment in terms of under-ice sampling 
during construction and into operations because it's 
relatively easy to do and there's no reason why we 
wouldn't do it.

The second part of the question in terms 
of revisiting objectives and winter data, as you probably 
know there -- there are some issues with the database 
with using that to develop the RCA benchmark numbers, 
principally because of detection limit issues. I wasn't 
aware that there was a significant issue in terms of 
specifically winter data. That's not to say that there 
isn't.

But I guess you could consider the -- the 
those limitations two (2) ways. You could say that maybe 
that makes it harder to actually use RCA as an approach 
to setting objectives or you could say that you really 
need to get a database in order to determine those
objectives.

We are thinking and working on ways to address that issue in collaboration with AAND and other people. And we wanna get, hopefully, to a resolution where we can come up with a defensible set of objectives that both parties are comfortable with and within the restrictions imposed on us by schedules and, you know, how -- what it would take to actually get to a point where we have a database that we're comfortable with.

The Chairperson: Thank you. Okay. I'm going to move on. Next one I have is Natural Resources Canada -- oh, does -- sorry, Anne, did you have a --

Ms. Anne Wilson: Yeah, one (1) more.


Ms. Anne Wilson: It's Anne Wilson.

Sorry, I thought that one was gonna be my quick question. Here's my second question, Mr. Chairman.

So going back to the waste rock pile and the runoff collection pond, this is to be designed with a spillway which drains into Harrison Creek. Runoff is predicted to be high in several metal parameters.

How will Canadian Zinc ensure that no deleterious substances enter the creek in the event the spillway is overtopped?
THE CHAIRPERSON: Thank you. I'm gonna go over to Canadian Zinc. Response?

(BRIEF PAUSE)

MR. DAVID HARPLEY: David Harpley. What -- what we've -- our current thinking on this issue is that, as I've explained, the intention essentially is for the collection pond to collect leachate and also allow the settling of sediment, specifically to avoid any discharge to Harrison Creek below. I also mentioned that the -- the design for the pond is based on a 1:100 year return period precipitation.

Now, clearly there is a possibility of there being an event that exceeds that limit, in which case you could have runoff from the pile area reporting to the pond that would exceed the capacity of the pond.

What -- what our intention is with the spillway is to have a mechanism that basically diverts that water to Harrison Creek without going through the pond on the basis that if that precipitation event is so significant, the quality of that water is unlikely to be high in metal concentrations.

And also, there will be sediment, for example, in Harrison Creek because of the same event, as
there will be in Prairie Creek. What we don't want to
have happen is for that event to move through the pond
and displace the water that's already in the pond out of
it and into Harrison Creek because that water quality may
be unacceptable in terms of metal content.

THE CHAIRPERSON: Thank you. Anne, did
you have another follow-up question?

MS. ANNE WILSON: Thank you. That's all.

THE CHAIRPERSON: Okay. Thank you very
much for your questions. I'm going to go to Natural
Resource Canada. Do you have any questions for -- for
the Canadian Zinc presentation made this morning?

(BRIEF PAUSE)

MR. FONS SCHELLEKENS: This is Fons
Schellekens, Natural Resources Canada. Natural Resources
Canada has no questions for the proponent at this time.

THE CHAIRPERSON: Thank you. I'm going
to go to Transport Canada. Any questions to Canadian
Zinc Corporation on their presentation this morning?

(BRIEF PAUSE)

THE CHAIRPERSON: Is there anybody here
from Transport Canada?

(BRIEF PAUSE)


(BRIEF PAUSE)

THE CHAIRPERSON: There's a gentlemen from the back there from Liidlii Kue Dene First Nation. Okay. Thank you. There's no questions. Okay. That are the people that I had on my list that we were going to put questions from the floor, but now I'm going to go to my staff in the back and I'm going to go to my Board members to -- questions for Canadian Zinc. So I'm going to go to my staff in the back.

MR. RAMLI HALIM: Mr. Chair, this is Ramli Halim, I'm working for -- as a consultant for the Review Board. I have three (3) questions actually. And the first one (1) is before I -- I started, I guess
following the presentation of the -- the -- that provided by the Chief Jim Antoine and also the Grand Chief Sam Gargan, there is two (2) things that I -- I hear be mentioned is about the -- the case. This is pristine land. And the second one is about water quality.

So my question is basically related to the two (2) items that because of the importance of the land, and the site of this project, and also of the water quality, and the questions related to the water storage pond and related to the tailings pond.

So, Mr. Chair, for the first question related to the storage pond, I was wondering if I can probably have the slide number 32 from -- from this morning presentation.

(BRIEF PAUSE)

MR. RAMLI HALIM: MR. Chair, Yes, this is the water storage pond that presented in the -- this morning of Canadian Zinc's presentation. And I also want to bring another drawing that actually being submitted as an addendum to the Developer Assessment Report, it was produced I believe in May, Figure Number 1, and in which is has a different crest elevation of the dike.

And but my question is to -- to double-up
with -- Mr. Chair, is I just want to make -- have a
confirmation from Canadian Zinc that this figure has
actually been superceded by the one that presented on --
in the addendum for the developer assessment report last
year.

THE CHAIRPERSON: Thank you. We're
gonna go over to Canadian Zinc in response to another
question from our staff.

MR. DAVID HARPLEY: David Harpley. Yes,
it has been superceded. It was simply a case that I had
this slide already prepared in another presentation so I
cut and pasted it, and time was a little short and --
it's merely for illustration, so the -- the more current
version is the correct one.

THE CHAIRPERSON: Thank you. We'll go
back to the Review Board staff.

RAMLI HALIM: Mr. Chair, Ramli Halim.
Just the second part of this question is: I just also
want to confirm that the calculation, the analysis, the
preliminary design that being presented by Canadian Zinc
actually reflected to the drawing that presented in the
addendum of the development -- developer assessment
report rather than the drawing shown on the presentation
this morning.

THE CHAIRPERSON: Thank you. Response,
MR. DAVID HARPLEY: David Harpley. If I understand the question properly, you're asking was the appropriate analysis done for the addendum figure; and yes it was.

THE CHAIRPERSON: Thank you. We'll go back to the Review Board Staff.

RAMLI HALIM: Mr. Chair, Ramli Halim.

Yes, I guess that's basically my questions. I just want to confirm that all the calculation, the current quantities, volume of water in the pond, it's also -- is based on the latest current drawing in -- in which has an elevation of eight hundred and eighty-one (881), which is presented in the commitment letter provided by Canadian Zinc in May.

My second question, Mr. Chair, is about the tailing -- tailings paste backfill. I guess this is a tailing paste backfill that presented by Canadian Zinc is one (1) of the -- a point that try to -- to be used to improve the quality by moving the tailings from above ground into underground. In the -- in the presentation, basically Canadian Zinc indicated that they're going to have all the tailing backfills going to underground 100 percent. However, based on the initial report provided by Golder in Appendix 15A, I believe, and also based on
the current practise and some of the literature research, a lot of cases that the tailings that can be put back is in the ranges from 55 to 65 percent.

I believe the Canadian Zinc indicated this in one (1) of the reply on one (1) of the documents, that -- that they were -- the reason that they can manage to a 100 percent because of the -- the amount of oil concentration that can be obtained from this mining.

My question is, basically, try to figure out whether Canadian Zinc can provide some practical examples of oil app -- application on the mining paste backfill around the world which just would show that the 100 percent application re-turning back all this tailing into the underground mining -- it's possible.

THE CHAIRPERSON: Thank you. I'm gonna go to Canadian Zinc in response to the question.

MR. DAVID HARPLEY: David Harpley. In answer to your question, frankly I'm not sure a data search for an operation that hasn't -- has a hundred percent backfill is really very relevant because the proportion of backfill that you can achieve is dependent on how much of the material you take out is minerals versus waste. In other words, what proportion ends up being tailings.

And we believe that the main reason we can
achieve 100 percent backfill or flotation tailings, not
the DMS, is because the proportion of the mineralization
that is minerals that will go out as a concentrate is so
high. So we would be searching for an operation that had
similarly rich material, and there may not be one, so I -
- I'm not sure I see the point of doing that search.

THE CHAIRPERSON: Thank you. I'm gonna
go to the Review Board staff. Further questions...?

MR. RAMLI HALIM: Mr. Chair, Ramli Halim.

Yes, just to follow that, the reason I ask that question
is because are you -- the planning for getting all these
100 percent tailings doesn't provide any kind of a
comfort zone, or -- I don't know what you call, a factor
of safety during the operation.

How are you -- be able to manage to get
all the tailing that going to go in -- back into the
underground? And at the end of the day are -- you're
going to have all the tailings going to go down
underground as a tailing paste backfill?

The reasons -- because when you are
putting this tailings paste backfill there has a mix
between the tailings, the water, the DMS, and then also
the cement content, and that's also tend to increase the
volume. So what happen if one (1) day the tail -- the --
the paste backfill plan is not working, what you going to
do with the tailings temporarily?

And is this part of the contingency that you plan to do? For example, you want to dump the tailings temporarily into the waste storage barn, or to increase the -- so that the water level will be increased over -- beyond or above the elevation eight eight -- eight hundred and eighty (880) so that you're gonna to have less freeboard at this time.

THE CHAIRPERSON: Okay. Thank you. I wanna go to Canadian Zinc.

MR. BYARD MACLEAN: Mr. Chair, Byard Maclean. I think you asked several questions. I'll answer the first one which is relating to how does one get a hundred percent of the tailings underground.

And we committed this morning to submit our paste backfill model which is part of the mine plan which will demonstrate how one backfills the -- backfills it with a hundred percent of the tailings. But a simple comparison would be a copper mine with 1 percent or 2 percent copper has 98 percent tailings. Our mine has only 50 percent tailings. And therefore there -- there's more space back underground for our tailings. But I'll send you the model, or I -- we will be filing the model and you can have a look at that.

Your second question was what happens if
the paste plant is down? And we have a -- the paste plant and the DMS plant are locked together. And so there are surge bins between the two (2). So if, for a short period of time, the mine can't accept paste for an hour or two (2) or three (3), we can simply reverse the conveyors in the paste plant and -- and store the tailings, filtered tailings, in a bin and store the -- the DMS in a bin. And then when we start up again we can continue.

That way the main processing plant can still operate, it can still produce tailings. Those tailings can still be thickened, and they can still be filtered.

What was the third item? Yes, and -- and, yes, that the -- so the storage -- the temporary storage is done in -- in those bins. And if there's long-term storage required that -- the DMS would go up to its normal location.

THE CHAIRPERSON: Thank you. I'm gonna go back to the Review Board staff. Further questions?

MR. RAMLI HALIM: Mr. Chair, just one (1) last question here just to follow up the response from Canadian Zinc. When -- for example, you indicated that they going to probably change the mix and try to get less DSM materials and then try to send those various material
into the waste rock pile.

Would that actually going to change the consistency of the paste backfill and in -- in which perhaps going to effect the performance of the paste backfill?

And the other one is, for example, if you're going to put -- as a contingency you want to dump it into the waste pond for temporarily, how that going to effect the water quality in the pond temporarily?

THE CHAIRPERSON: Thank you. I'm gonna go to Canadian Zinc. Response?

MR. BYARD MACLEAN: Byard Maclean. The -- none of the tailings go back in the pond, the -- the water storage pond, other than the first fifty thousand (50,000) tonnes of tailings and the only reason they go there is we need some space underground before we can start backfilling. And, therefore, the most appropriate place to store those tailings, in our opinion, is underwater in the tailings pond. And they will stay there until the end of the mine life. So, they will be the first tailings into the pond, the last tailings out of the pond, and also the last paste to go underground.

The -- the temporary cessation of operations of either the DMS plant or the paste plant will not affect the mix because there will be a -- there
will be a -- the -- the surge bins can return when the --
when the paste plant starts up again there will be
sufficient cement and tailings and DMS to produce
whichever mix of tailings the operator is requesting back
underground. So it will have no effect.

THE CHAIRPERSON: Okay. Thank you. I'm
going back to the Review Board staff. Questions to
Canadian Zinc...?

MR. RAMLI HALIM: Mr. Chair, Ramli Halim.

I don't have any further question at this time.

THE CHAIRPERSON: Thank you. I'm gonna
go to the Review Board legal counsel, is there any
questions for Canadian Zinc on their presentation?

MR. JOHN DONIHEE: John Donihee. No

questions, Mr. Chairman.

THE CHAIRPERSON: Thank you. I'm going
to go to my right -- far right, and I'm gonna go to Board
member Peter Bannon. Any questions to Canadian Zinc on
their presentation?

MR. PETER BANNON: Peter Bannon, Board

member. In DIAND's presentation they made reference to a
Spencer (phonetic) 2008 study. And I know it's on the
record, but I have not gotten around to reading it
myself, but I will.

I was just wondering, in the meantime,
this study, according to DIAND, has identified increased
concentrations in tissue of -- for mercury and -- in
Prairie Creek, the -- whatever animal was measured.
Would you like to comment on this or try to offer an
explanation? Because you seem to suggest that -- or
everyone seemed to suggest that mercury is at non-
detectable levels in the creek in the water quality.

MR. DAVID HARPLEY:   It's David Harpley.
I -- I'll give you my impression of the report and I'll
let John add to it if he feels it's necessary.
The information, as I understand it, is
that there appears to be a higher concentration in fish
tissue at what they call the near-field site downstream
of the mine, compared to upstream.
What I also understand, because this issue
was reviewed by Monique Dube, Professor at the University
of Saskatchewan, and her analys -- or at least her
position on the matter was that while there is an
appearance of a higher concentration, on a statistical
basis the numbers are essentially the same.
Notwithstanding that -- in terms of where
is the mercury coming from. That's a good question
because it -- it's a little puzzling for us at this point
because we don't see it in our mine water and, of course,
we're not making any process water at this point, so
that's not the -- the source. So it's a little bit of a
question as to where this mercury is coming from, or
what's the pathway.

One (1) possibility is that it might be
natural and it might be related to -- to sediment
ingestion. We do know the vein is exposed in the creek
downstream of the mine and we know that there's
mineralization in the -- the rock sequence downstream and
on the other side of the creek.

So we can't offer a definitive position on
what the source of that mercury is. And, in fact,
whether the result actually means anything. Because my --
again, my -- my feeling or what -- at least, of what
I've been told is that the -- the actual concentrations
in tin -- in tissue are still well below any level that
would trigger a concern in terms of significant
accumulation.

THE CHAIRPERSON: Thank you. I want to
go back to Board member Peter Bannon. Any further
questions?

MR. PETER BANNON: Thank you. That's all
the questions I have, unless John wants to offer
something as well.

THE CHAIRPERSON: Thank you. I'm going
to go over to Board member Danny Bayha. Any questions
for Canadian Zinc on their presentation?

MR. DANNY BAYHA: Thank you. I just have some -- a few questions. Thank you.

You know, the -- over the day we had quite a bit of questions on paste backfill. In terms of -- I guess we -- in your slide 8, your -- your -- one (1) of the first slides you have, like, 12 million tonnes of total resource that's available and possibly more.

The question I have is, like, when we're talking about tailings, after you -- you mill it you have tailings. And we're talking about the -- the metals that's gonna be -- that's gonna be there after you mill it and you -- and you put it underground and stuff. What tonnage are we talking about? How much waste in terms of -- of volume or weight are we talking about at the end of the mine life, at fourteen (14) years.

I don't know if somebody could care to guess how much that would be. Because after the mines closed we like to know what are we talking about that's going to left -- be left behind that the communities, government, and everybody has to deal with. If -- should -- if -- if treatment has to be an issue, that's gonna be an issue.

So if you can give us a figure that would be very helpful. Thank you.
THE CHAIRPERSON: Thank you. I'm gonna go to Canadian Zinc. Response to Mr. Bayha's question...?

MR. DAVID HARPLEY: David Harpley. I -- I think there's actually two (2) parts to that question. I'll address the second part and then I'll let Byard talk to the -- the quantity side of the question.

From the closure and long-term perspective and, kind of, liability aspect, I can understand your discomfort with historical mining operations in the north and the legacy that's been left behind for communities and government to deal with. However, we already have a legacy at this site, the fact that the mine exists already and it discharges mine water.

And what we're proposing is a logical way of resolving this legacy at the same time as extracting minerals such that we have a stable situation at the end. And -- and it's also -- it's true to say that if we don't rectify this current legacy at this site, then somebody will have to.

But my expectation on this matter is that we fully expect that we will be in discussions with government agencies, if and when this project moves forward, to determine the appropriate magnitude and mechanics of establishing a sufficient reclamation bond.
so that the Company is obliged to close out the property
in a proper way so that there is no legacy left behind
for somebody else.
And now I'll let Byard talk to the -- the
volumes.

MR. BYARD MACLEAN: Byard Maclean. Over
the fourteen (14) year mine life we will mine four (4)
point -- all -- almost 5 million tonnes of ore.
During that period we will generate 2 1/2 million tonnes
of tailings that will all go back underground. We will
generate 1.2 million tonnes of DMS rock, some -- 35
percent of that will go underground and the rest will be
moved up top and incorporated in the waste rock pile. So
that's the -- that's the -- the current resource.

THE CHAIRPERSON: Thank you. We'll go
back to Board member, Danny Bayha.

MR. DANNY BAYHA: Thank you, Mr. Chair.
The other question -- I mean, that last figure, the
amount of tailings that you mentioned, is that including
the -- the -- you had -- one (1) of your slides you had a
-- a picture of the possible resources that's further
down into the -- in the shaft in some areas here. You
had a picture -- I don't know what page that was, but
that would be including the -- the possible sources as
well -- other sources in that vein that you were talking
about then. Or is it just the -- the initial what is
applied for in this -- in this water licence or -- or
permit?

MR. BYARD MACLEAN: Correct. You say --
that's the current resource that's going to be mined that
-- that's associated with this permit. The other
reserves are not included because they're not a -- they
haven't been brought up to the satisfactory confidence.

MR. DANNY BAYHA: Okay. Thank you.

THE CHAIRPERSON: I'm gonna go to Board
member -- oh sorry, Danny Bayha still has further
questions, sorry. Go ahead, Danny.

MR. DANNY BAYHA: That's fine. The other
question I had, I think it's more of a -- when you're
talking about load limits, earlier you mentioned -- you
talking about loading as a way of -- like, taking
upstream and putting it back into the downstream, the
effluent. And you will have this data almost live at
your plant and you would adjust accordingly if limits
would exceed your objectives that you possibly could set.

With technology being the way things are,
I mean, would this happen -- this -- this live data
that's coming in for what's -- if you're testing it
pretty quickly, how -- how fast is that -- can happen? I
guess, my -- my concern is how fast can the Company react
to adjust their -- their operation if limits are exceeded
and how -- how quickly can that happen? And if that can
happen, can that kind of data be shared with regulators
that need to know right away live through satellite if
that's the case? Thank you.

THE CHAIRPERSON: Thank you, Mr. Bayha.

I'm gonna go to Canadian Zinc. Response...?

MR. DAVID HARPLEY: David Harpley. Two

(2) parts to the question. In terms of how fast can data
be transmitted, you can see how fast the Internet works.
And so I would suggest that's as -- probably as -- as
fast as it will be, if not faster. My idea on the matter
is that you will have the -- the data on creek flows
reporting directly to the treatment building. And if
there is a desire, that information can be uploaded in
real time to people off site if they want to see that
information coming in.

And the same applies to discharge from the
site itself. We'll be on a -- on a metering system with
the data being transmitted into the -- the treatment
room. So it's continuously being tracked.

And clearly you're not going to wait until
you get to the point where you might have an exceedance
of the allowed discharge. We -- you would be tracking
this and seeing, depending on what parameter you're considering, if it's starting to approach a point where you might have an exceedance. And -- and if you're starting to get there then you'll pay more attention to it. And you'll be ready to make a change in terms of starting to send more water to the pond or, conversely, bring more water to treatment if -- if the flow is going in the other direction in the creek. And -- and the way you do that is basically having a computer -- computerized system of opening or closing valves or a partway, or whatever it is, to adjust the flow. So we're anticipating a -- kind of a built-in computerized approach to do that.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you. I'm going to go to Danny Bayha.

MR. DANNY BAYHA: Thank you, Mr. Chair.

On one (1) of your last -- very last slides -- I have -- just have two (2) more questions.

But one (1) of your last slides you have economic benefits. For our Board, I think, for -- at least for myself, what I'm interested in -- not so much the details of the IBA that you agreed with the two (2)
Bands so far that you've made known, but the -- do you have a list of -- of benefits that's -- that the Company has identified as -- as points of -- of letting us know as -- as -- in this hearing of those points. Is that -- some of it is covered on the IBAs with the -- with the Communities, with the Bands, and some of them now, and I -- I just want to know which ones are, and which were -- which ones are not.

So if -- not so much the details of the IBA, but just say which ones are covered off so we get an idea of what is already agreed upon with -- with the Company and -- and the First Nations. Thank you.

THE CHAIRPERSON: Thank you, Mr. Bayha. I'm going to go to Canadian Zinc for a response.

MR. WILBERT ANTOINE: Wilbert Antoine, Canadian Zinc.

The economic benefits and the social issues programs are -- some of them are covered under the IBA. And some of them -- like, there -- there's -- loosely, just on my -- my own interpretation, there's a -- it's sort of a two (2) pronged approach under the IBA and some of the things that we do for the Communities.

I think, under the -- under the economic benefits that is pretty well all under the IBA, maybe with the exception of the last two (2), the anchor tenant
and the Band office, which we are currently doing. And
we are expanding our office space to provide the Mine
Training Society program training for the -- for the IBA.

Ongoing community events, that's sort of
the -- the second part of the -- you know, the -- the
non-IBA stuff that we do. You know, there's a lot of
things that we do. Not everyone is a golf -- golfer, but
we do that. We do on -- on the IBA in one (1) of the
smaller Communities we do pretty well everything that we
were asked by the Communities. Same with the -- the
Community here in LKFN. And under the social issues
program the -- yeah -- yeah. These -- these are pretty
well policies of the Canadian Zinc program that we have
on.

MR. DANNY BAYHA: Thank you, Mr. Antoine. The final question I have, and I think this is, for me,
more of an overall question that -- that needs to be
asked by all parties is that, as a company, trying to
operate -- or, trying to open up a mine that's been there
for a long time, I guess if you can give us a quick
snapshot of what your expectations are from the different
parties of our Board, the Water Board that's going to be
in it, as well as the -- the mining -- the -- the
government agencies, the regulators. So you can give us
an idea of what you hope to happen as the Company
proceeds and -- and operates in -- in this area. So I would like to know your -- your hopes and your visions on this. Thank you.

THE CHAIRPERSON: Thank you, Mr. Bayha, for your final question. I'm going to go to Canadian Zinc in response.

MR. DAVID HARPLEY: David Harpley. That's kind of a very broad question, so I'm not confident that I will capture it all in my reply, but I'll take a shot.

I think as a company we feel that we can develop this project in a environmentally-friendly, sustainable fashion that minimizes the risks and significant impacts, and is essentially protective of the environment, and will be a substantial improvement on the situation we have at present. I mentioned that it's a legacy site at this point.

I personally believe that we can get to a point where we have a successful mining operation, substantial economic benefits for Communities and the region, a very profitable mine for the country as a whole because it is a very rich mine. It can operate for a long time and really make a big difference in this part of the world.

And personally what I like most about this
opportunity is, I think it's a real opportunity for the region, and Canada as a whole, in terms of where -- where else in the world can one say that we've operated a mine to present-day standards within a national park and world heritage site. I think it's really a win/win opportunity, if we do it right, and we have every intention of doing it right.

THE CHAIRPERSON: Sorry, go ahead, Danny Bayha.

MR. DANNY BAYHA: Thank you.

THE CHAIRPERSON: Thank you, Mr. Bayha, for your questions. I'm going to go to Board member Richard Mercredi. Questions for Canadian Zinc on their presentation from this morning?

MR. RICHARD MERCREDI: Yeah, thank you, Mr. Chairman. Just a couple. It's a twofold question. My question is: What type of metals and chemicals will remain in the paste tailings that will be stored underground? That's one (1) question.

And the second one (1) is, I guess, what testing has been completed to ensure these compounds will not leach into the existing aquifer system running through the mine?

THE CHAIRPERSON: Thank you, Mr. Mercredi. I want to go to Canadian Zinc in response.
MS. SHANNON SHAW: Shannon Shaw, Phase 1 Geochemistry. The chemicals that would leach from the paste backfill are essentially the same that are there in the rock right now. They're just in a different physical form.

Other than the addition of a little bit of cement that would be added -- add some -- it might bump the pH up marginally and add a little of alkalinity to the rock. Other reagents, I might have to pass that over to Dave. I don't believe anything of any significance would remain in the paste that would leach out.

Leaching potential from the underground mine in general is a combination of two (2) components, really. It would be the paste tailings put back underground, as well as the wall rock that's left there after -- after the ore is extracted.

And it's largely going to be dominated by the wall rock, by the groundwater movement through, and the differential groundwater movement through the rock versus the more compacted, less permeable paste. So it will be dominated still by the rock in the wall, but the constituents from both are essentially the same.

THE CHAIRPERSON: Thank you. I'll go back to Richard Mercredi. Any further questions?

MR. RICHARD MERCREDI: Okay. Thanks, Mr.
Chairman. No further questions.

THE CHAIRPERSON: Thank you, Mr. Mercredi. I want to go to my Board member to my left, Rachel Crapeau. Any questions for Canadian Zinc?

MS. RACHEL CRAPEAU: My one (1) question that I just wanted answered had to do with a question about deleterious substances in the spillway area to make sure that it does not enter into the creek. The answer was given that it was -- something about a collection pond, and I just wanted to know where that collection pond was.

THE CHAIRPERSON: Thank you, Ms. Crapeau.

I want to go to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. I believe we were talking about the waste rock pile at the time, and the collection pond that we intend to construct at the toe of the pile. And that's the location that is in a draw of Harrison Creek, so it would be immediately east of the mill, upstream, and it -- just behind the mountain right behind the site.

THE CHAIRPERSON: Thank you. I want to go back to Ms. Crapeau.

MS. RACHEL CRAPEAU: I need to know which, like, what number in your information package?
(BRIEF PAUSE)

MR. DAVID HARPLEY: That's twenty-eight (28).

THE CHAIRPERSON: Can you point it to --
this again? I can't see it from here.

MR. DAVID HARPLEY: David Harpley.

Here's the -- the waste rock pile here, and there's the
collection pond right there. So this is Harrison Creek,
and the mill is off the map this way. So this is
downstream.

(BRIEF PAUSE)

MS. RACHEL CRAPEAU: Right down there,
that little puddle in the middle, that's where it could
collect, and -- and if it does goes in there, you -- you
will be able to treat it and -- and possibly have it
cleaned up so that any of the substance does not go into
the river system? Is that what I'm hearing?

THE CHAIRPERSON: Thank you. I want to
go to Cana -- Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. Yes,
that's correct. The -- the intention is that the -- the
seepage from the waste rock will report to the pond at
the toe here, and then from there this pond would feed
into either a pipeline to the mill, or into a borehole
which would feed the water into the underground workings,
which is directly below this location.

I should also mention that this location
will have diversion structures around each side so that
the natural runoff from the hill side would be diverted
around the pond to the creek because we want to collect
seepage from the waste rock. We don't want to collect
surface runoff, which will be clean. So it'll be cau--
cought at the toe there.

THE CHAIRPERSON: Thank you. I'm going
to go to Ms. Crapeau.

MS. RACHEL CRAPEAU: Thank you.

THE CHAIRPERSON: Thank you. I'm going
to go to Board member Percy Hardisty. Questions to
Canadian Zinc on their presentation?

MR. PERCY HARDISTY: Mahsi, Mr. Chair.

In your presentation here, under the heading of mine
closure. Again, in regards to the -- one (1) of your
points. The second point here is this cover waste rock
pile limit seepage. Can you clarify that for me.

THE CHAIRPERSON: Thank you. I'm going
to go to Canadian Zinc. Response?

MR. DAVID HARPLEY: David Harpley. We
have done a preliminary study, or at least we've had a --
a preliminary study done on our behalf, simulating the
effect of placing different kinds of materials on top of
the waste rock at closure with the intention of limiting
infiltration from surface, which if it permeates through
the cover would end up being leachate from waste rock.

At this point in time it -- it appears
that if we have a compacted clay soil cover of
approximately, I believe it's, 1 metre in thickness we
can satisfactorily limit the amount of infiltration and
minimize the amount of seepage that would potentially
discharge from the waste rock after closure.

So the point of the cover is to promote
runoff and keep runoff clean and minimize the amount of
infiltration that would occur, which could turn into
seepage and picking up metals.

THE CHAIRPERSON: Thank you. I'm going
to go back to Board member Percy Hardisty.

MR. PERCY HARDISTY: Mahsi, Mr. Chair.

Your third point says:
"Treat and monitor groundwater until
quality is stable and groundwater
discharge will not have a significant
impact."

Have you any idea how long you're going to
treat and monitor groundwater?

THE CHAIRPERSON: Thank you, Mr. Hardisty. I'm going to go to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. I guess you could say we have an idea at this point, but it needs more study during operations to better quantify the source and the response of the source during the closure period.

But whatever the duration is we will have to commit to be there to deal with the situation until the monitoring has determined that either we need to proceed with our contingency of pumping the water and -- and treating it as the groundwater recovers within the backfilled mine area, or that we can suspend monitoring because the monitoring has indicated for us that it's behaving as we expect and concentrations in groundwater are such...

(BRIEF PAUSE)

MR. DAVID HARPLEY: Can you still hear me?

(BRIEF PAUSE)
THE CHAIRPERSON: Go ahead.

MR. DAVID HARPLEY: Yeah, so the monitoring will continue until such time as we can confirm that the groundwater is of a quality that we can allow the water levels in the groundwater to continue to rise to the point when -- when they'll be discharged.

THE CHAIRPERSON: Thank you. Okay.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. We are going again. Is the sound and -- the recording is good? Okay. We'll continue on. I'm going to go to Board member Percy Hardisty, comme -- questions?

MR. PERCY HARDISTY: Mahsi, Mr. Chair. That's all the questions that I have. Mahsi.

THE CHAIRPERSON: Okay. Mahsi, Percy Hardisty. I'm going to go to Board member James Wah-Shee. Questions to Canadian Zinc on their presentation?

MR. JAMES WAH-SHEE: Sir -- Chair, I really don't have any questions, thank you.

THE CHAIRPERSON: Thank you. I'm going to go to Board member Darryl Bohnet. Darryl Bohnet, questions for Canadian Zinc on their presentation?

MR. DARRYL BOHNET: Yes, thank you, Mr.
Chair.

The Board identified water quality as a key line of inquiry at the early stages and we asked the Company to focus at that in their developer's assessment report quite some time ago, and today we know that, from the various presentations by the two (2) Bands and a variety of government agencies, the focus is still there, and -- and we still haven't been able to achieve a collaborative site specific water quality objective.

I'm curious as to how much effort and time has been contributed by the gov -- govern -- various government agencies to achieve a collaborative objective, and when did it start? Did it start after the technical com -- meeting, or -- or did it just evolve to today? So I'm -- I'm curious of the timing of this thing.

THE CHAIRPERSON: Thank you. I want to go to Canadian Zinc in response.

MR. DAVID HARPLEY: David Harpley. I -- I think that the true answer to that question is kind of lengthy and complicated, so I'll try and summarize it as best I can.

I -- I think it's true to say that both proponent and regulators have had some frustrations with the process. I don't particularly want to dwell over those -- on those at this point because it's not the
right venue, but we have some thoughts on how it could be made better, and I'm sure the regulators do, too.

On the specific item of objectives, I will say that we started out as a company considering the RCA approach to said objectives because we had been through a screening process and determined, or at least we felt, that there was six (6) main parameters that needed to be considered.

And when we went through our step-wise process, the -- the RCA approach worked for those parameters. So that's where we stopped at that point. When we had the first technical session -- in fact, if -- I think it was the first IR round, there was responses from parties indicating that we need to consider more than just those six (6), and it ended up being eighteen (18) parameters that we now have to consider.

So we then went back to our step-wise process, and looked at the RCA numbers, and while it worked for those first six (6), at least at that time with our management system, it did not work for all of the parameters, and so we had to start looking at toxicity and what that meant in terms of potential impacts.

At the same time, we were further developing our water management approach in response to
the questions that we'd been receiving and comments that
we'd been receiving. So we started to go -- go through
an iterative phase of project modifications, revision ob
-- objectives, and I would consider that kind of a
natural progression of an EA process. To me, that is
part of a -- the EA process and what it is meant and
intended to do to refine the project.

So we -- we then came with a set of
objectives to the second technical meeting, which were a
mixture of RCA-based and toxicity-based numbers. And it
was at that point where we had an in -- intervention from
AAND, or their consultant, indicating to us that while
they supported the RCA approach, they had big problems
with the quality of the database upon which they were
based. And this was on April 12th.

So at that point, we're, as a company,
trying to respond to the -- the comments that we
received, and I guess you could say the schedule was
going really compressed at that point because we were
all looking to move the -- the schedule forward. So we
did what we could in the time we had available.

From a personal standpoint, what I found
very difficult as a -- kind of the -- the lead technical
person on the file for the Company is that really we --
we did not get a true reflection, and full appreciation,
perhaps that's a better way to describe it, of -- of what
the feelings were of government parties until we actually
received written material from them. And I might suggest
that this one (1) thing that might be looked at in future
for the process.

What I have in mind is that perhaps
parties would be encouraged to provide preliminary
written responses before we get well into the process, so
the proponent really has a good understanding of what
their issues are and then can start planning accordingly.

THE CHAIRPERSON: Okay. Thank you. I'm
going to go back to Board member Darryl Bohnet, if he's
got anymore questions.

MR. DARRYL BOHNET: Thank you very much,
Mr. Chair. I guess I'm still left wondering what it
takes to resolve this situation and how much time it will
take. You know, we -- we have a hearing here, and then
there's a time to -- to get some material in; obviously
we've heard that there's a couple weeks here to do -- get
-- get some material from -- from the company on the
record. But what does it take, and what is the timing to
get some resolution to this, because this is a core, core
issue?

And it looks to me like there's been some
-- a lot of discussion about cooperation, and support and
collaboration, but I haven't -- I still don't have a -- a
feel for a resolution to it. And -- and I'm looking for
your opinion as to how -- how we can proceed and -- and
potentially the timing. Thank you.

THE CHAIRPERSON: Okay. I'm going to go
back to Canadian Zinc.

MR. DAVID HARPLEY: David Harpley. Yes,
I can understand why you have that question. And what I
will say is that we are talking to government on this
issue; we were talking over lunch, as you know. We have
come to a -- kind of an understanding of a -- perhaps a
way to move forward. I will not say anymore at this
point, because we will come back to this issue quite
shortly. Robert Jenkins will talk on the matter from --
from Anne's perspective and we can take it from there.

But just to let you know, we're as
concerned about schedule as you are.

THE CHAIRPERSON: Okay. Thank you. Back
to Darryl Bohnet, Board member.

MR. DARRYL BOHNET: Thank you. I'll
leave it there. Thank you.

THE CHAIRPERSON: Okay. We're done.

Thank you. Before we -- we're going to break, but before
you break I just want to mention that tomorrow on the
agenda we have -- it looks like we're going to start at
9:00, and because it's Friday, I'm going to suggest that we -- or I should say -- suggest I want to start here at 8:30. And tomorrow, if we need to, we could probably shorten our lunch, because we still got a lot of presenters yet, but I think those ones will go quick.

So tonight we're going to have a -- people from the community to come in to make some public statements as well, so we're going to start that at 6:00. So before we break I just also want to make a note, as well; a little bit earlier I had mentioned that Indian -- Indian and Northern Affairs had changed their name, and I made a comment that -- I called it whatever we called it, the repairs and whatever, but again, it was never intended to offend Indian and Northern Affairs. I just wanted to send my apologies to them.

It's -- it's just that we've got different acronyms up there on the agenda here and our -- on our layout here it says Indian and Northern Affairs. And on the other hand, we have Aboriginal Affairs and Northern Development and then we also have DIAND. So I guess it's going to take some time for everybody to really catch up on that.

So I just want to just put that out there. And for now I'm going to ask that we take a break and we'll come back at 6:00, and we'll want to hear from the
--- Upon recessing at 5:16 p.m.
--- Upon resuming at 6:29 p.m.

THE CHAIRPERSON: I'd like to call this public hearing to order. It's now 6:29. Because we got started late we need to give the public the opportunity to make some public statements here, so we'll give them that extra half hour or so, which means that, you know, if there's people here that's going to make a statement I also want to get -- get them to see Jessica in the back who's taking names from the public here, from the community, in regards to this public environmental assessment here in Fort Simpson. So I guess first of all I want to see who's on the list or who's got the list for... Jessica...?

What I'll do is we have Lorayne Menicoche; she's -- Menicoche Moses. I'll move her down; she's not here yet. So I'll get then Nahendeh MLA Kevin Menicoche to come up and sit at the table over here. And then after Kevin, we'll have the Mayor of Fort Simpson, Shaun Whelly.

And then we have Kirby, I believe, Groat,
I hope I got that right, from here, from Fort Simpson. And we have Ted Grant, Simpson Air. So those are the -- that order.

If anybody else want to say -- make some public statements here this evening I ask that you go see Jessica Simpson in the back and she'll put your name down. With that, I'll ask Kevin Menicoche to come up and make your statement.

(BRIEF PAUSE)

PUBLIC STATEMENTS:

MR. KEVIN MENICOCHE: Good evening. My name is Kevin Menicoche, the MLA for Nahendeh. I'd just like to welcome members of the Mackenzie Valley Environmental Impact Review Board to my riding in Nahendeh, the Dehcho and Fort Simpson.

I -- I hope that you're enjoying your visit to the region and have productive hearings as -- as we did in Nahanni Butte yesterday and I'm really thankful for the opportunity to speak to the -- the Board today about the Canadian Zinc Prairie Creek development plans.

As we know, the proposed -- Prairie Creek is located in -- in the Nahanni National Park, within the boundaries of the Nah -- Nahanni National Park Reserve.
And mineral developers have shown great interest in the site since ore grade minerals were discovered there.

In my term as MLA for Nahendeh, I have observed the time and effort that Canadian Zinc Corporation has put in to developing the property into a mine and I also have been sensitive to the fact that many constituents never did want to -- to see a mine.

You know, I believe that in the long term we can have the mine operations completed and the lease hopefully returned to Parks Canada so that we can have a whole park.

However, today I accept the reality that there is a lease there and the proponents would like to mine the minerals and also that two (2) of the communities in my riding have signed Impact Benefits Agreements and have agreed to work with Canadian Zinc.

Therefore, I can express my support for the application of the Prairie Creek Mine provided it takes place in an environmentally and sociably responsible manner, also that they minimize impacts using the latest technological and industry standards.

The main concern as we have heard from our Elders in Nahanni and are hearing from regular la -- leaders here is the water and the watershed. The Prairie
Creek mine is located in an area with special significance not only to local Aboriginal people but in one (1) of the most treasured and spectacular areas in the world, the Nahanni National Park Reserve.

Established as a World Heritage Site in 1978, with the boundaries further extended in 2009, the Nahanni National Park is home to many animals. There's a place of legendary canyons, huge waterfalls, and a limestone cave system.

Many people remain deeply concerned about the potential impacts of the Prairie Creek mine in this fragile protected area.

Canadian Zinc has publically stated its goal is to operate the mine with no significant adverse effects to the South Nahanni River or the Nahanni National Park Reserve.

However, there are some outstanding risks that have been identified with the mine's operations and throughout the day these were reflected in the submissions and questions from many of the regulators and federal government bodies.

I just want to focus on a couple of things. The first one is the construction of the all-weather road to the mine. It will have a significant effect on the natural environment. Even the opening of a
winter road has raised concern among certain members of
our Aboriginal communities.

    Either a seasonal or all -- all-weather
road will open the region to over-harvest from
opportunistic hunters, further disturbance and human act
-- activity through construction and -- and personnel
camps, and disruption to the wildlife habitat. I would
strongly recommend that Canadian Zinc mitigate these
effects of a road through establishment of monitoring
plans and a careful route selection.

    I also appreciate the efforts that
Canadian Zinc has made to train and hire people from the
regional communities and use as many local resources as
possible. If there was an ask, I would -- it would be
that there was a human resource and training plan, though
it may not be in the Board's mandate, but it's important
that future jobs be relocated to Fort Simpson.

    Of over two hundred (200) jobs they speak
of, we must have them located in the north so that we can
actually benefit from them. Fort Simpson is a great
place to live, for example.

    Once again, I recognize and am pleased
with the Impact Benefits Agreement signed with -- with
the -- the Nahanni Butte Dene Band and the Liidlii Kue
First Nations. Also I got to recognize the significance
in investments in the Nahendeh communities that Canadian
Zinc Corporation has made through sponsorship of
community events, scholarships to our youth in the
region, and providing opportunities for career dev --
development.

The -- the Corporation also makes a
consistent effort to recognize the Dehcho First Nation
and its -- and its continuing negotiations toward a land
claim process and self-government agreement with the --
with the Government of Canada.

It believes the corporate goals and those
of the Dehcho First Nations can be compatible. I have
every reason to believe that this level of sincerity and
benefiting our communities and local business will
continue.

And just in closing, I would like to state
that the Prairie Creek Mine has the potential to be a
leader in socially and environmentally sensitive mining.
The Corporation recognized that its development is taking
place in ecologically sensitive environment.

With diligent environmental review and
consistent application of the highest operations and
maintenance standards the Prairie Creek Mine can bring
significant economic benefits to the Dehcho Region and
Northwest Territories without the poisonous legacy so
often associated with mining development.

I also, once again, stress the fact that in the long term I foresee the mine closing and the cleanup plan enacted to include returning the lease to Parks Canada, thereby having a fully operational Nahanni Park.

And once again, I'd like to thank you for the opportunity to address the Board and the concerns of the people in my region. Mahsi cho.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you, Mr. Kevin Menicoche, Nahendeh MLA. Mahsi for your statement. And that I'm going to call up next is the Mayor, His Worship from Fort Simpson, Shaun Whelly, the village of Fort Simpson.

(BRIEF PAUSE)

MR. SHAUN WHELLY: Good evening, ladies and gentlemen, Board members, and representatives from industry and other organizations. I too would like to welcome you to Fort Simpson and hope that you do have some productive meetings, and enjoy your time while
you're here in -- in beautiful Fort Simpson.

My name is Shaun Whelly, and I am the Mayor of Fort Simpson. The village represents twelve hundred and fifty (1,250) residents living within the municipal boundaries of the village. The village is a regional centre and shares a role in representing the aspirations of local residents along with the Liidlii Kue First Nation and the Metis local.

Fort Simpson is a majority Aboriginal community in a majority Aboriginal region, and that is the main reason why the village of Fort Simpson took a reserved approach to the Canadian Zinc mine until the main stakeholders, the First Nation in both Fort Simpson and Nahanni Butte, felt comfortable with the overall Canadian Zinc mine proposal and, in particular, the environmental mitigation measures proposed by Canadian Zinc.

The recent signing of the IBA with the Liidlii Kue First Nation added to the IBA signed previously with the Nahanni Butte Band has given impetus to the village to add its voice to the review process.

Beyond dogs, ditches and dumps, the village is strongly committed to supporting and developing a viable and sustainable healthy community supported by a diversified economy.
The Village of Fort Simpson detailed its position in a letter drafted on June 14th, 2011, and sent to the Review Board on June 16th, the day the Liidlii Kue First Nation signed its IBA. This project support letter, now on the Review Board's public registry, reads as follows, and if I could just read that letter, it's only a few paragraphs:

"The Mackenzie Valley Land and Water Board received four (4) applications from Canadian Zinc on June 8th, 2008. The applications were recommended for environmental assessment. The Village of Fort Simpson is satisfied with the extensive review that has been conducted and believes that all major environmental concerns have been properly addressed by Canadian Zinc. The village recognizes the importance of this project in bringing economic development to the region and to the community. The IBA signed with the Nahanni Butte Band and the reported close working relations with the Liidlii Kue First Nations are
encouraging signs that all affected stakeholders will benefit from the development of this mine. Canadian Zinc is a good corporate citizen, has been very forthcoming with community communications and has demonstrated ample willingness to share any benefits that may accrue from this project. The village is looking forward to a positive set of final recommendations from the Mackenzie Valley Environmental Impact Review Board that will hasten the start of this project with a minimum of further delay."

And that was signed, "Shaun Whelly, on behalf of the Village Council of Fort Simpson," dated June 14th.

In the last paragraph, the positive set of recommendations referenced in the village's letter looks forward to a set of environmental guidelines that are reasonable, technologically economical and feasible and compatible with the standards and conditions employed in other Canadian jurisdictions.

The Board should be able to weigh the
large body of information provided during the last three 
(3) years of environmental assessment and recommend a 
reasonable balanced approach going forward. That balance 
must protect the environment and, in particular, the 
watershed downstream from the mine while at the same time 
allowing the Canadian Zinc project to contribute to the 
vibrancy and diversification of our local and regional 
economy.

A balance would be achieved through 
mitigation and minimization of all significant and 
legitimate potential detrimental impacts.

The people of Fort Simpson recognize that 
no mine can start with zero impacts. We have confidence 
in the Board's ability to recognize the importance of 
this project to this community, and to allow the project 
to go ahead with a minimum of future delay while 
implementing the reasonable environmental protections 
required, recognizing that no amount of discussion and 
planning will ever make this, or any mine, zero impact.

And on that note, I'd like to say thank 
you for listening to me on behalf of the citizens of Fort 
Simpson. Thank you.

THE CHAIRPERSON: Thank you for your 
presentation, Mayor Shaun Whelly. Maybe for -- for the 
record, as you read it into the record, but also maybe if
we could get a copy of your -- your statements, also from
Mr. Menicoche, and if you could just pass that on to
Jessica in the back, and then we'll put that in the
public registry, as well.

Next we have is -- is Kirby Grant -- or
Groat, sorry, Dehcho Suites, Fort Simpson, Chamber of
Commerce. Please come up.

(BRIEF PAUSE)

MR. KIRBY GROAT: Thank you, Mr.
Chairman. I appreciate the ability -- or the ability to
speak to you. My name is Kirby Groat. I have a couple
business here, Dehcho Suites in Fort Simpson, and I also
have Dehcho Hardware. And I am the president of the Fort
Simpson Chamber of Commerce.

I did send a letter into the Review Board,
and it is on file there earlier so you've got it there.
I'll just make a few additional comments and that kind on
that.

I -- the environmental issues and
technical issues seem to be handled very well, and I
won't speak to any of that.

I am quite confident with the IAB (sic)
signings between Nahanni Butte First Nations and also
between Liidlii Kue First Nations and Canadian Zinc.

The -- the monitoring of the environmental issues coming out of the mine will be addressed thoroughly, and for the benefit of all people around.

The only issues that I really would like to speak to, I'm -- I'm very excited about the potential of a mine opening up in the Dehcho. We -- right now we have very little other than government jobs, government money, injected into our whole Dehcho region, and to have private sector employment is quite an exciting prospect in the Dehcho.

Creating two hundred and twenty (220) jobs is very good, but the way I understand mining, it creates somewhere between two (2) to four (4) other jobs besides the direct mining jobs. So we aren't talking two hundred and twenty (220) jobs, we're talking in the neighbourhood of six (6) or eight hundred (800) jobs created out of this -- this mine, as my -- I understand it.

And that is something that has to be considered also, the balance between the environmental issues and the social institutes where the jobs are created. I'm quite interested and quite happy to see that it pro -- or hoping it proceeds beyond that.

I don't have a whole bunch else to say except I totally support Canadian Zinc. I believe they
have a professional organization behind them. Their
monitors and their people who are working with them all
seem like professionals in the fields.

And I really do hope this project goes
forward. Thank you for the time and I appreciate the
opportunity.

THE CHAIRPERSON: Thank you, Kirby Grant,
Dehcho Suites, Fort Simpson Chamber of Commerce. Mahsi
for your presentation. Again, if -- if -- also maybe if
you could leave a copy of your presentation with Jessica
in the back, as well. Oh, sorry, Kirby Groat. I'm sorry
about that.

I want to call Ted Grant, Simpson Air,
chamber -- or sorry, Simpson Air. I hope that -- yeah,
Simpson Air.

MR. TED GRANT: There we go. Yeah, no,
I'm no relation to Kirby. He used to work for me though
years ago; he was my chief engineer.

Mr. Chairman, Board members, thank you
very much. I've been in business here for just thirty
(30) years now and about twenty-five (25) years ago I was
probably the biggest air charter company north of
Edmonton, Alberta when we had the initial pipeline, the
Norman Wells Pipeline going. And at the time I had over
thirty-four (34) employees here and ten (10) airplanes.
As a result of the end of the pipeline and with what's happened here in the Dehcho, there's been virtually no economy since then and now I am the smallest air charter operator north of Edmonton, Alberta with the fewest amount of airplanes and I'd like to see that change and go back the other way.

I certainly support Canadian Zinc. They've been a -- an excellent addition to the business community here. They've set up offices here. They help sponsor a lot of things that happen here, including one of the largest golf tournaments in the Northwest Territories now. And they hire local; they use local businesses. And from what I understand if the mine gets going the local business is going to have first opportunity at -- at many of the major businesses and so I support them 100 percent.

The -- the impact that the mine may have, we all know in this day and age that under the new environmental regulations that they have to abide by all the environmental regulations, so I really don't have a problem with -- with what they're doing, and like I said, I totally support them 100 percent.

If anybody has any questions, I'd be glad to answer them.

THE CHAIRPERSON: Thank you, Ted. Right
now the way our agenda is laid out we're just
entertaining public statements from the community so we
really appreciate your comments and it's read into the
public records. So that would be part of our evidence we
need to proceed to make decisions, so I want to say thank
you very much. Mahsi cho.

I -- I don't know if Lorraine Menicoche Moses is here. Oh, she's here? I'd like you to come up
and give your public statement.

(BRIEF PAUSE)

MS. LORAYNE MENICOCHE MOSES: My name is
Lorayne Menicoche Moses and I'm a concerned citizen of
Denendeh. I just wanted to make a presentation to -- to
the Board and -- and to the Chairperson.

I just want to say that, you know, like
with all the signing of the IAB and -- and with Canadian
Zinc and First Nations -- like my First Nations, Liidlii
Kue First Nation, I just wanted to bring to -- attention
to the fact that not everybody endorsed it, you know.
Like there's not 100 percent consensus because I did not
support it. You know, I have no -- no -- I have no --
like I -- I do support training and education and all
that stuff, you know. I -- I fully support that but
that's not the fact.

It's just like, you know, like, sign this and that means that Liidlii Kue First Nation is in full support of Canadian Zinc but there's the other part of it is like the environment, the environmental concerns that I had.

Like I had these environmental concerns about twenty (20) years ago when it was called Prairie Creek and there was a review board and I went there when I was -- and I made my presentation.

At that time we had a lot of support group, like we had a lot of consultants that come in. We had -- we had big -- big concerns. We had a lot of concerns, we brought it forward. And -- and I remember that one (1) of them -- one (1) of the strongest one was the Elders really were concerned about the water, you know. Like, what's going to happen to the water if something happened with that -- with the Prairie Creek, the mine, because it's -- the water flows down this way. You know, like right here's the Mackenzie.

I'm just pointing this way because the Mackenzie is flowing this way. And -- and the mine is someplace up in the mountain there and it goes down the -- the Nahanni and to the Mackenzie, into the Liard and into the Mackenzie. If something happens then -- then it'll be --
it will affect the people and the animals and the plant
life and the fish and the frogs and all of these, you
know, insects, everybody -- everything that relies on
everything. You know, like, it's like a full circle, eh.

And so that's what I'm worried about. I'm thinking about the negative impacts in -- in the future,
especially because look at what's happening with Enbridge
now. It used to be called Imperial Oil. They had big
hearings back twenty (20) years ago, I remember that.
You know, I remember say, Oh, nothing's going to happen.
Everything's going to be okay, but look at what happened
now.

Like, you know, like there -- there's an oil spill there and nobody knew about it for a long time,
and all of a sudden now they're just, you know, they're just trying to clean it up.

And that's the sort of stuff that I'm thinking about, you know, like, just because we're going
to get some shares, we're going to get some training and things like that, we still got to think about the
environment, you know. Like a lot of the Elders that spoke, they used to speak out against all this sort of things, are no longer with us.

Like, you know, like Lay Norweigan (phonetic), like Mary Cazon, you know, the ones that
really guided us and gave us wisdom are no longer here
with us to be able to -- to tell you -- you know, to tell
you, the Review Board, to really think about the
environment, to think about what might happen in the
future and we've got to think about the future
generations and especially the water, because water's
what -- what we live on.

And that was my main concern. I just
wanted to bring this point forward for myself, because
it's been really on my mind, you know, like -- it's like
we're being paid off, and they'll go, Oh, yeah, support
Canadian Zinc. And I told Wilbert Antoine, I said, At
6:00, I'll be out there on my protest sign, you know,
saying, I do not support Canadian Zinc.

You know, like, that's the way I told him,
and I just -- and I said I was going to make my
presentation. And I just wanted you to really think
about the people that are not here. You know, think
about the people in the future, and the people that don't
have voices, you know, like voices that could come here
and tell you their -- what their view is, like.

So that is one (1) of my main concern. I
just wanted to tell you that, you know, like, to really
think about -- when you're making your decision, to think
about the common people, the people who are walking down
the street, who may not get the jobs, who may not get the benefits of Canadian Zinc, you know, like that's what I just wanted to bring forward.

And thank you very much. And I don't have a written speech. It got a little bit of notes, that's it. Okay. Thank you.

THE CHAIRPERSON: Thank you, Lorayne Menicoche Moses. Mahsi for your public statement. It's -- it's in the record, so thank you very much.

MS. LORAYNE MENICOCHE MOSES: Okay.

THE CHAIRPERSON: Is there anybody else in the audience from the community that want to come up and make some public statements?

(BRIEF PAUSE)

THE CHAIRPERSON: Well, at this point I'll have to call it but, I mean, is there anybody else that may want to come up and make some public statements?

Jonas, I think you had your hand up earlier. Elder Jonas Antoine, and he's -- come on up and, again, happy birthday. Today is your birthday, I believe.
(BRIEF PAUSE)

ELDER JONAS ANTOINE: Mahsi Cho.

(INTERPRETED FROM SOUTH SLAVERY INTO ENGLISH)

ELDER JONAS ANTOINE: There's a lot of people speaking and...

(INTERPRETATION CONCLUDED)

ELDER JONAS ANTOINE: I'm a member of the Liidlii Kue First Nation, considered by some as an Elder in the Dehcho. We speak about this and I feel that nobody else knows about it better than I, because I have been in the heart of this whole thing for many, many years now. The expansion of the Nahanni Park, I'm one of the people that worked very hard to help expand the Park, and that happened.

I'm one (1) of the people that is in partners with Parks Canada and we have an agreement, a memorandum of understanding with Canadian Zinc to recognize one another. And I sit on many other organizations that gives me voice and gives me knowledge of things that are happening today.
I'm one (1) of the people that started talking many years ago about the future, about the Dehcho vision, where we not only look ahead to what we can accomplish in our lifetimes, but many years beyond that, one hundred (100) years, two hundred (200) years. And I saw an opportunity with Canadian Zinc where industry and conservation and the Dene people can coexist.

In 2001, Dehcho First Nations signed an agreement with Canada to recognize companies like Canadian Zinc that had a hold in the Nahanni watershed, and that is an agreement that we have, and we are honouring that agreement.

With that agreement in mind, we said, Let's move forward. Past chiefs saw the opportunity, going back a few years, Chief Herb Norweigan, Chief Jerry (phonetic) Antoine, Chief Rita Cli, Chief Keyna Norweigan, all also saw that opportunity.

It took effort to move forward to this day, a lot of concerns, and concerns such as my cousin Lorayne brought up, and those are the type of concerns that we carry with us constantly.

But things are at a point now today, in this day and age, where things will never be the -- the way they were back fifty (50) years ago, but we can look back and look at our history and look at this day and see
what we can do with the opportunities that we have today,
and that is one (1) of the opportunities we saw.

And Canadian Zinc, what's here, and we saw something there that made us move forward with confidence. We may have compromised some of our past positions, but we are the leaders today. Chief Jim Antoine and the councillors, and I'm one (1) of the councillors, we have one (1) voice. We said, Let's move ahead, and that is our responsibility to do that.

People voted for us and gave us this authority to do things for them. We consult with people. We talk with our people. And we hear one (1) voice, We need jobs. We got to move ahead. And we saw this in Canadian Zinc.

The agreement that we signed is a very, very good agreement. It's a positive thing, where for the first time in aboriginal history Liidlii Kue First Nation, as a leader, will have an opportunity at the end of the day -- has an opportunity to own a piece of the pie, maybe not greatly significant, but a piece of that pie, where no one, no other organization has ever done that before. And there's that little door opened for us there that we can have that.

And when we talk with Canadian Zinc we have the same vision, where not just train two hundred
and twenty (220) muckers, but two hundred and twenty
(220) professional working people that can move up the
ladder. Eventually, we want to be able to have our own
people running an organization such as a mine operation
as geologists, as superintendents, all the way up the
line, with support as doctors and -- and med -- medical
facilities, and we have that opportunity to do that.

And Chief Jim, when he spoke earlier he
said, We have this job to do, and it is a big job for us
to do, but we can do it because we have confidence.

And this day marks something great for us
all, and when I first started off here I said, you know,
I feel that I'll be the heart of this, and it kind of
makes me keener once in a while, but I look at it as a
balance. And that's one (1) of the things that we -- we
had to do, balance things, and this is a good balance
that we have right now, that we feel.

When we signed the agreement last week
with Canadian Zinc, former Chief Rita Cli, when she
signed, put her name on the agreement, at the end of her
name she wrote "For the future generation." And that is
one (1) of the things that I have always heard her speak,
and that is one (1) thing that we always have in our
minds, for future generations.

In 1921, two (2) of my great grandfathers,
one (1) on my mother's side and one (1) on my father's side, both signed -- left their mark on the treaty in 1921. They, too, saw something ahead to coexist, and they put their mark on that piece of paper called a treaty to coexist.

And we've honoured that treaty. We have. And we have this agreement now where we want to be able to honour this agreement, as well. And I would like to see this honour like this on both sides, and I have confidence in that.

So mahsi cho. I only stepped up here because nobody else wanted to speak. Mahsi cho.

THE CHAIRPERSON: Thank you very much, Jonas. And your comments are read into the registry, so I want to say thank you very much, mahsi, for coming up, and doing your -- making a statement on behalf of your community. With that --

ELDER JONAS ANTOINE: Mashi cho.

THE CHAIRPERSON: Mahsi, Jonas.

We also have another individual from the community here, Chuck Blyth. I hope I got that right, Blyth. Would you please come up, and make your statement in front?

(BRIEF PAUSE)
MR. CHUCK BLYTH: My name is Chuck Blyth.
I'd like to ask a few questions to Canadian Zinc, if
that's okay, and obtain a response. Is that possible?

THE CHAIRPERSON: No, I just want to let
you know that we're doing the agenda as -- as it's laid
out, and -- and all this has been publicized, and it's on
the public registry, and -- and so on.

So tonight what we're doing is we're
taking public statements. So if you have a public
statement, you can do that. So right now, if you have a
statement to make we'll --

MR. CHUCK BLYTH: Okay.

THE CHAIRPERSON: -- we'll obtain it.

MR. CHUCK BLYTH: I will muse with my
questions then, and will remain to see if those are
answered in the next few days then.

First of all, I was like listening to the
presentations today, and I've followed the process for
about ten (10) years now, and I'm looking at what's
currently proposed.

And I was wondering if there was enough
working capital presently in existence to actually carry
out the actions that -- that have been presented to us,
taking away the amount of the company that's actually a
gold mining company, and looking at amount of cash.
I was just wondering -- I was sitting here thinking, Yeah, that's really cool stuff. You know, we'll build a -- we'll build walls up the side of the canyon to keep the water out of this pond, but I wonder how much that would cost.

I thought, well, maybe there's somebody down the future is going to buy the mine at the end of the day, I wondered to myself. I thought -- I wonder is there a large shareholder currently in the Company that's got a lot of resources we don't know about, and these questions sound kind of like what business is that of his.

But normally when you're looking at a process you see a bankable feasibility study and you look at that and you say yeah, that's a good deal, I can make a lot of money and -- but there's certain constraints that they have to face to make money. But I've never been able to see that, so those questions kind of stick out in my mind today.

I thought when I heard that a stretch of the road had discontinuous permafrost on it but we really haven't done the study so we don't know what percentage, because discontinuous could be 95 percent or it could be like 5 percent. And that would make a big difference in terms of how much money we would have to spend if it
turns out that our opt -- optimistic predictions are
wrong then where would we be.

I thought paste backfill, that's a good
deal, a hundred percent. But everything I've ever read
it gets it up to about 65 percent which somebody else
brought up today and I thought okay, so. But their ore
is more pure so they'll get more of it underground but I
still couldn't see the hundred percent.

But let's just say for a shareholder like
I want to buy part of the Company, I say, man, I've got
to have a lot of assurances that's a hundred percent
because if we can't put it all underground then where are
we gonna put it and what monetary constraints face us as
a company when we go to do that. I'm just saying that
from an environmental perspective too because all these
environmental things we've committed to all take cash.

And I thought, okay, so we're not gonna
impact on the environment because it's a winter road,
they have a set time period that they're gonna operate
the mine through, and they said -- we have thirty (30)
years worth of information which allows us to know that
it's gonna be open from this date to this date. And I
thought well, that's good. And then I heard, based on
the ice bridge, and I thought: The ice bridge? That
would be like me using an ice bridge south of Red Deer,
Alberta to guess about building a winter road from Banff to Jasper. Like -- like how does that work? And I thought I've been out there lots in the winter and it melts from time to time and there's avalanches and there's blizzards and I wonder how many days that takes out. I wonder how many days we're talking really bad weather within that time period. And there's thirty-five (35) trucks a day are going to fit in there, how many trucks does that squeeze in. And I couldn't really find that in the information I'd read, it was just that it's pretty solid it's not gonna change much. But hey, I've been out there lots in the winter. I know there's crazy fluctuations in weather. Some years good, some years bad. And you go with thirty (30) year average, but when you're running a company it's like quarter by quarter. If you have a really bad winter and you don't get that ore out for those three (3) months then what? Who's gonna pay for the environmental things in the meantime? The upside to these things are we get lots of jobs for people, and I think fantastic. My kid needs a job, everybody's kids need jobs. But -- so I look and I listen to the things I heard today and I thought, hm, it's not leaving me feel very safe because it all sounds
kind of like it's up in the air and we're not quite sure. And a lot of it's based on a lot of optimism, which I frankly don't share because when I'm investing my money I think about pessimism. I think about what's the worst-case scenario.

What's the worst case scenario of building the road if the permafrost turns out to be 60 percent? What's the worst case scenario if the road's only open for twenty-five (25) days instead of a hundred and twenty-five (125) days? What's the worst case if the paste backfill can't go a hundred (100) percent underground? What happens if a new crack forms in the structure of the rock? Which could happen with blasting, and it's a very high earthquake area.

And the water right now is coming down major fractures and the Company has got a great way to move it around that paste backfill but what about a new crack? How do you get to it once you've got the paste backfill, a new crack happens here, how do you get over to that -- through the rock to get to it? Take it all out? Go back to scratch? Reroute it?

And I thought man that's really expensive. Man, if I'm investing here I'm thinking, hmm, I don't know. And I thought well, maybe the earnings per share would be really high but I haven't seen any forecasts on
what the earnings-per-share would be during the phase of
it ramping up and during the phase when it's operating.

And I would have to know that to say
whether I -- I would be an investor to invest in the
Company and I knew I'd get a rate of return, given
there's major environmental constraints that we're
developing operational ways around the paste backfill,
different things of the winter road, slowing down if we
see caribou. But what are the economic impacts of this
to me if I'm a shareholder and I have my money invested
in this or my kids' job depends on it?

So the -- those are the kind of things
that -- through my mind today. And so I was kind of
hoping that what we'd see at some stage through this is
the economics behind this, like how much money is this
going to take to build and what's the rate of return,
what rate are we borrowing this at. If the Canadian
dollar's worth a dollar five ($1.05) does that work or
does the Canadian dollar have to be ninety (90) cents?

And this opening and closing, if that
happens, what's the socio-economic impacts? Do we wait
for three (3) years until that's ready, like the
pipeline? Now it turns out the pipeline's got their
permits, but they got to wait for gas prices to go up.

So what other conditions in this mine do we have to wait
for before it starts so my kid can have a job?

I think it's great, a fantastic national park out there, a fantastic environment, a really cool employment opportunity with the mine and opportunities to work and, as Jonas said, a fantastic balance, but I'd sure like to know like when's this going to happen and what's -- how does the whole cash thing work. And I've -- looking at other mining opportunities, it's -- you usually see that bankable feasibility information upfront before you go down the road too far in these kind so things.

So, anyways, that's my concern as a citizen. As what I do for a living now, my concern is that I hope that the Company is willing to hire local when it comes to the more complex, more delicate, more complicated aspects of -- of running the mine. Would they hire a local environmental consulting company as opposed to where they get their information from now? They go to Golder.

Well, Golder engineered a really cool polishing pond that -- that didn't quite work. I read Golder's stuff that says 65 percent paste backfill, but this one says a hundred. Like I wonder if maybe there isn't a place for some small northern companies in the world of -- of environmental issues, resource management,
that could get some jobs.

I have some reason for optimism in that I know Canadian Zinc wants to employ as many people, locals, environmental monitors. There's a great environmental monitoring course that the college teaches, and they take people from these communities all over the north and they give them a time period where they learn about how to work with scientists and how to collect basic information and just a basic understanding of environmental issues.

And that's great because they'd like to sponsor a couple of those courses here at Dehcho, so I'm hoping that you include those kind of things in your findings because I -- I'd really like to see when those environmental -- things that people put out there end up showing up in the -- in the requirements by the Environmental Impact Review Board, so I think that's one (1) good one myself.

But I have to say I per -- personally have a stake in that, so. If there's any kinds of other things that -- other than -- it's not all about just being heavy equipment operators and being underground miners and things. It's -- it's a future of are we going to hire some of our kids as the geologists, are some of our kids going to be the engineers. And, right now, it
isn't that way.

So another question I thought I kind of --
at the end of the day I thought, I wonder who owns
Canadian Zinc, like who's the biggest shareholder.
What's -- who do we envision -- or who do you envision to
be your big shareholders in the future as you go out and
get more capital? How much does the Liidlii Kue own of
the Company, like how many shares to they get? How many
shares does Nahanni Butte get? Because that ownership
thing I think is important in the north. People have to
feel that they actually owned part of the -- of a
development like this so that they feel like they have
some way to determine the final outcome by being part of
it.

I don't think there's any problem with
that. I -- personally, myself, I always think it's a
good idea at the Land and Water Board phase to go for
that rather than getting locked into ownership in
environmental impact review stage because we don't know
what the impacts are yet.

But I -- I think it's really good what
LKFN and Nahanni Butte are trying to do. I just hope
that they're able to -- to realize a good future.

Myself, just in conclusion, it's -- a lot
of the monetary stuff that I don't ever talk about when
somebody points to something on one (1) of those maps and says, We're going to put a wall here, or we're going to do this. Like how much does that cost, and how much does that cost per share, and how much is zinc going to sell for, and how much are we going to realize from that sale per share? Anyways, that's all I have to say.

THE CHAIRPERSON: Thank you very much, Chuck Blyth. I hope I got that right. Mahsi for your comments and statements. Is there anybody else in the public that's here tonight that want to make a statement in regards to the Canadian Zinc Environmental Assessment public hearing here in Fort Simpson?

If -- if you could put your hand up, and Jessica in the back is willing to take your name down. While -- no one is putting their hands up, I was -- want to kind of recognize, well, Mr. Harin (phonetic) over there from Imperial Oil. And also Betty Hardisty in the back. I see you. Then Dolpha Solja (phonetic). It's good to see some of the youngsters.

Okay. If there's nobody else -- please state your name. Can we -- sorry about that. We -- can somebody give him a mic or -- can you come up and make your -- if you have a statement to make?

(BRIEF PAUSE)
MR. PETER SHAW: I'm just saying it's unfortunate that, Mr. Chairman, you didn't take the chance, or the opportunity, for the rest of your Board members to be introduced to those of us that only came at 6 o'clock. I realize you may have done it at your other meetings, but I -- I think they deserve the benefit. Thank you very much.

THE CHAIRPERSON: And what's your name again?

MR. PETER SHAW: Shaw, Peter.

THE CHAIRPERSON: Oh, Peter Shaw? Okay. Thank you very much, Peter Shaw. And I -- I guess maybe you're -- you're correct on that point, but at the same time, you know, this morning I think most people were here. We did the introduction.

But I'll go ahead and do it just so that -- it's good that you raised that point, so I'll just -- I know it's a little bit too late, but we still -- never too late to do anything, so I'll just go to my far right, and I'll just introduce.

Peter Bannon, who is our Board member. And we have Danny Bayha from the Sahtu region. And Richard Mercredi from Fort Smith. And Rachel Crapeau from the Akaitcho region. Percy Hardisty from the Dehcho region. James Wah-Shee from the Tlicho region. And
Darryl Bohnet from Yellowknife. And so I -- yeah, thank you for raising that point, Mr. Shaw. And myself, Richard Edjericon, as the chairman. Mahsi.

Is there anybody else that want to make statements? Betty -- Betty Hardisty, please come on up.

(BRIEF PAUSE)

MS. BETTY HARDISTY: ...allowing me to speak. My name is Betty Hardisty. I'm a representative of the First Nation of the Dehcho region. Also a Band councillor.

I'd just like to say that I know the Chief has already made a presentation in supportive of our citing of the IAB (sic), and I'd like to strengthen that by appearing tonight as a councillor. And as previous councillors, half are elected body and representing the Community. We are the voice. Mahsi.

THE CHAIRPERSON: Thank you, Betty Hardisty, Band councillor from Liidlii Kue First Nation. Mahsi Cho. Again, we'll use this opportunity to listen to the -- from the people from Fort Simpson and the Liidlii Kue First Nation members.

Anybody else that want to come up and make statements in regards to the environmental assessment
file that's in front of us today?

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. That's it. I don't see anybody else coming up, putting their names up. Any Elders that want to make statements? Okay. All right. Well then 7:25, I don't know if there's anybody else that's going to show up before 8:00, but we publicized it to be at 8:00.

Tomorrow we also have a long agenda. I'm hoping that we will be able to get most of it done. What I'll do though tomorrow morning is we'll start -- rather than starting at 9:00 we'll start at 8:30. Also at lunch time we -- we say we're going to take an hour. What we'll do is we'll cut that back to 30 minutes, and we could have lunch here if we have to, and just so we can try to get through all the presentations tomorrow.

And I think I'm -- some of the presenters might have to leave, so I may move some people around to do their presentation first thing tomorrow morning. So I'll do that. So...

(BRIEF PAUSE)
THE CHAIRPERSON: So I think I'm going to maybe call it an evening now because I think everybody had an opportunity to present and make statements. And, again, I want to thank all the people here in Fort Simpson, Liidlii Kue First Nation, and all the people that have came up tonight to make your statements. I really appreciate it. It's good that we -- we hear your statements. And those statements will -- again will be -- are -- is recorded now. It will be part of the evidence when we make a decision here to -- in the next probably few months or however it takes to get this thing done.

So I want to say thank you again for everybody coming out tonight. With that, again, you know, it's always good that when we have a good meeting, and sometimes people need to speak from their heart, it's good that we do that. You know, that's what the elders always told us. And I just want to thank Mr. Shaw again for making your comments about the Board members. Mahsi for that. I appreciate that.

And I'm going to ask our -- our Elder -- our birthday Elder here tonight to come up to do closing prayer and I'm going to ask Jonas Antoine to come up to -- to do the closing prayer for us tonight.

Jonas...?
(CLOSING PRAYER)

--- Upon adjourning at 7:30 p.m.

Certified correct,

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Wendy Warnock, Ms.