Mackenzie Valley
Review Board

EA0809-002: Canadian Zinc Corporation – Prairie Creek Mine

Meeting Report from the Nahanni Butte Scoping Session

Compiled by: Mackenzie Valley Review Board ("Review Board") staff
Location: Nahanni Butte Dene Band Office
Date: September 30, 2008

INTRODUCTION

Review Board staff hosted scoping sessions in several Dehcho communities between September 30 and October 3, 2008, to gather issues and concerns from all parties about the proposed Prairie Creek Mine, approximately 90 kilometres northwest of Nahanni Butte. The Review Board will be using this meeting report, reports from other scoping sessions (including a Technical Scoping Session in Yellowknife on April 9, 2008), all of the information on the Public Record (available at www.mveirb.nt.ca), and any follow-up scoping submissions from any interested parties (due October 14), to determine how to proceed with this Environmental Assessment.

While this meeting report is as comprehensive as Review Board staff could make it, this is not a verbatim document. It is based on notes by Review Board staff. Unlike the official statements made at Review Board hearings toward the end of the Environmental Assessment process, scoping sessions are less formal dialogues.

Interested parties are reminded they can submit comments to be placed on the public record of the environmental assessment at any time.

A digital recording of the session is stored in the Public Record at the Review Board's Yellowknife offices. Contact Alistair MacDonald at the Review Board with any questions or comments:
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Fx: (867) 766-7074
amacdonald@mveirb.nt.ca

ATTENDEES

In attendance (only those people who signed in or made their names known):

Alistair MacDonald – MVEIRB
Nicole Spencer – MVEIRB
Jessica Simpson – MVEIRB
David Harpley – Canadian Zinc Corporation
Wilbert Antoine – Canadian Zinc Corporation
Chris Reeves – Canadian Zinc Corporation
Chief Fred Tesou – Nahanni Butte Dene Band
Joel Holder – GNWT Environment and Natural Resources
Julie Jackson – Indian and Northern Affairs Canada
Fraser Fairman – Indian and Northern Affairs Canada
Marc Casas – Indian and Northern Affairs Canada
Mike Vandell– Indian and Northern Affairs Canada
Steve Vandell – Indian and Northern Affairs Canada
Dana Haggerty – Parks Canada
Flora Cli
Jane Konisenta
Leon Konisenta
Steven Herrett
Lorraine Vital
George Betsaka
Burton Campbell
Pauline Canmpbell Vital
Don Hardisty
Tammy Matou
Peter Marcellais

Translation – Wilbert Antoine assisted with translation for Canadian Zinc Corporation's presentation. Jane Konisenta of the Nahanni Butte Dene Band kindly provided occasional translation during discussion and Review Board staff presentations.

SUMMARY OF ISSUES RAISED

Questions related to the following were identified by participants (*Review Board staff note: the developer is encouraged to provide submissions addressing these questions or perceived information gaps at any time)*:

- Training initiatives; access to jobs once the mine opens
- Need to balance desire to take advantage of economic development with protection of traditional lands
- Water monitoring plans require further assessment
- Access of mine water into groundwater system and movement of groundwater through the mine, picking up contaminants

- Missing information from 1980-2 original environmental impact assessments.
- Impacts from the Mine prior to CZN owning it.
- Backfill technology not understood well. The effectiveness is questioned.
- Community wants to know more and be involved in the Water Testing.
- Earthquakes in the area. Seismic activity needs more research.

The following potential issues were among those identified:

- Water quality changes from the mine, in Prairie Creek, other area creeks and the South Nahanni River
- Whether or not a full environmental assessment of the winter road would occur
- Winter Road access issue and associated impacts on wildlife and environmental impacts at stream crossings
- How use of the winter road area would be monitored when it is not in use. For example, during the fall hunt.
- Traffic on the road would likely lead to accidents causing injury and/or spills.
- "Privatizing" the road was a concern for people regarding ability to access the areas for traditional purposes.
- How long the EA would take was a big concern of community members with regards to people able to use their current work related licenses. They expire and it costs money to reissue.
- Cumulative effects of many roads in the mountains, referring largely to exploration roads in the vicinity of the Prairie Creek Mine
- Flooding of the site area in extreme weather situations and the impact of polluted runoff into creek.
- Road traffic and safety. The ability for trucks to be able to pass each other safely.
- Sedimentation issues from road traffic along the creeks especially Funeral Creek.
- Waste Rock Pile drainage over time and how it would impact the water system.

MEETING REPORT

The meeting commenced at 9:40 am.

Opening Prayer by Flora Cli.

Jessica Simpson, Community Liaison Officer for the Review Board, gave a presentation. This presentation provided an introduction to environmental assessment for the audience. This presentation (and all others by Review Board staff and the developer) is available at www.mveirb.nt.ca under the Public Registry for Canadian Zinc Corporation Prairie Creek Mine Environmental Assessment – EA0809-002.

A participant asked a question about whether there was a previous environmental assessment when the mine was originally permitted, and if so, why that wasn't enough. Why is another assessment necessary? This individual also raised the concern that there are currently very little jobs and money coming in to the community and the mine would provide an economic lift.

It was voiced by a participant that the Review Board was there to stop the Mine from going ahead and this was not something that the community liked. Review Board staff reiterated that the Review Board is not "anti-development", that its responsibility is to the environment and the people of the Mackenzie Valley. People were encouraged that if they support the development, to bring that evidence forward, it is just as valid as concerns. Review Board staff also noted that it was the Nahanni Butte Dene Band that asked INAC to refer the proposed development to EA on the grounds it might impact traditional territory.

Review Board staff pointed out that it was the Nahanni Butte Dene Band that asked for referral of the Prairie Creek Mine to EA, so that is one reason why the Review Board staff had come to this community for scoping. Also, Review Board staff pointed out that this was the first time the mine had been applied to operate under the MVRMA, which is a more advanced environmental impact assessment regime than that of the early 1980s. In addition, Alistair noted that environmental assessments look at the good and the bad that are likely to occur from a development, and try to balance them to make good decisions for the environment and people, and that this system is an outgrowth of land claims – people of the North fought for this system to be in place.

A participant wanted to know if there were any impacts back in 1980 when the mine was first built. Alistair MacDonald stated that this environmental assessment is just starting, and during scoping the Review Board is looking for people to identify past studies and plans that should be considered during this EA. David Harpley of Canadian Zinc Corporation later noted that some of the original EA documents from around 1980 have been submitted for the public record, but they haven't found all of the documents.

A participant noted that it was important that training start in advance of the mine so that local people can take advantage right away, and raised the concern of having (training) licenses expiring while they waited for the EA to be completed.

A concern was raised about who would work in the community if certain men leave the community to work at the mine.

One participant raised concerns that a long EA would mean there are still no jobs for people of Nahanni Butte in the interim. This Mine would be a big boost to the economy given there is no oil and gas currently occurring in the Dehcho.

It was voiced that there is a definite need for communication regarding training between the community, MVEIRB and the Developer.

A presentation was given by Review Board staff member Alistair Macdonald regarding the role and goals of scoping sessions. Alistair identified that the purpose of these meetings during the early "scoping" stage is to find information gaps in the work done so far, to identify the right questions to ask during the Environmental Assessment, and to raise concerns about how the development might impact the environment.

A Presentation was given by David Harpley of Canadian Zinc Corporation which provided an overview of the proposed Prairie Creek Mine.

It was learned during this presentation that water samples were taken weekly on site and monthly in other nearby waterways. This was not known by most participants. It

was also identified that Parks Canada was involved with water sampling and testing in various locations around the Nahanni River. It was learned that each year after spring run-off a sample was taken from the containment area around oil tanks and sent to INAC for approval before discharge into creek. No contamination has been encountered yet. The developer also noted that the small amount of water that collects in the hydrocarbon containment facility proves that the area is not prone to leakage. The facility is built to handle 110% of the volume of the largest tank within it, to protect against tank rupture.

The developer noted the previous developer (Cadillac) built the mine underground workings on a slight incline, so that it drains water via gravity. That has created something of a liability for the current owners, because metals enriched water flows out of the mine and will do so until such time as the underground works are closed. The developer noted that the very first time any of the mine water was treated was when Canadian Zinc started treating it in 2006. Despite this, studies by the University of Saskatchewan in cooperation with Parks Canada have found little downstream effects from 25 years of mine water release direct into Prairie Creek.

The developer identified that this is anything but a typical environmental assessment (EA), in that much of the infrastructure has been there for over 25 years, and many previous studies have been conducted. In addition, the developer felt that it could have applied for the old mine without upgrades and avoided EA (via the "grandfathering" clause, Section 157(1) of the MVRMA) but didn't do so because Canadian Zinc wants to improve the efficiency and minimize the environmental footprint of the mine.

LUNCH BREAK: 12PM-1:15PM

After lunch, David Harpley continued his presentation on the development description. The following questions and comments were fielded by the Developer during its presentation:

- **What wastes will be removed from the site?**

The Developer responded that plastics are now removed. In the future, oil filters may be removed as well. Most refuse is incinerated onsite, and a new high efficiency low emission incinerator will be installed for mine operations. Inert refuse (steel, etc.) will be trucked out on the winter road when feasible (i.e., when there is room on an outgoing truck that brought supplies in), with the remainder placed in a landfill in part of the waste rock pile. It is too expensive, in the Developer's opinion, to remove all obsolete inert materials from the site down to southern disposal facilities.

- **Will permafrost heaving have any effects on the fuel storage containers?**

The Developer noted that one of the four fuel storage tanks has tilted slightly but the Developer is committed to putting a proper pad under it.

- **Are there any PCBs on site and how will they be dealt with?**

The Developer noted that one transformer spill occurred prior to the present Developer purchasing the property and that was a PCB spill. The Developer does not know where the contaminated soil was placed, because there is no record of this activity by the previous owner. No other transformers containing PCBs have been located on site.

- **Is there going to be an assessment on the airstrip?**

The Developer has no plans to reassess the airstrip at this time and sees no reason to do so as it seems to suit its purpose.

- **When was the mill equipment last used?**

The Developer replied that the machinery was never run, or at least that no previous production stage milling occurred.

- **Will stabilizers be used to hold the cemented paste tailings backfill?**

Yes Bulkheads will be strategically placed for stabilization.

- **Will access to additional potential ore reserves be limited due to backfill process?**

No. There will always be entry points to go in various directions around what has already been mined/ filled.

- **How much water is being treated now and will be treated during mine operations?**

The developer indicated that this information was in the project description report, but estimated that right now the mine is releasing 20 litres per second, and that the treatment plant will have double that in treatment capacity, at 40 litres per second.

- **How long will the temporary run-of-mine ore stockpile be stored there?**

It could be there for the life of the Mine and until closure. It will be rotated.

- **What is the pH of the waters and how will it be affected by the Mine.**

There is dissolved zinc and cadmium in the drainage water. Sodium carbonate is currently used to make water more alkaline (to increase the pH). This causes the metals to precipitate out of the water. Because of this the water will be a much better quality upon release. The developer may consider the use of lime as an alternative to sodium carbonate during operations. The pH of the discharge pond water is currently approximately 9.5. When this combines with other water of a lower pH it will balance out and become very close the pH of Harrison Creek which is 8.3.

- **How many trucks will the developer would have on site for ore hauling along the winter road?**

The developer indicated about 20.

During a break, Review Board staff asked Developer about the fish sampling done in the area for water quality purposes and if the University of Saskatchewan's suggestion of using benthic sampling instead of fish sampling would be implemented. Developer noted that it was already in effect and there would be no fish sampling.

The Developer also pointed out that there is a heat recovery plan whereby the heat from the generator is used to heat shafts inside the mountain and other areas.

The developer then proceeded to identify four major areas where Canadian Zinc has examined potential environmental impacts in another presentation:

1. Air quality
2. Water Quality and Fish
3. Wildlife
4. Cumulative effects

Participants were encouraged by Review Board staff to identify issues they feel need greater examination during the environmental assessment.

Water Quality
The developer stated that its number one concern is the maintenance of water quality. A variety of community members also identified water quality as their number one priority. A participant expressed concern that the water should be taken care of for the animals and the plants as they all rely on it.

A participant raised concerns that there were not people from the community up in the watershed keeping track of water quality and reporting back to the community. The Developer noted that they would like to support the training of community environmental monitors and this would be part of any agreement with the community. A representative of the Developer also suggested that the community environmental monitor might be able to do sampling right at Nahanni Butte and have the company test it to make sure people know the quality of water near the community. The developer noted that it had put having community environmental monitors on site in a draft Memorandum of Understanding between CZN and Nahanni Butte Dene Band.

A participant asked whether the Developer had considered the capacity of the dike wall to handle major storm or flood events from Prairie Creek and keep mine and process water from being released from the water containment facility into the watercourse. The participant was also concerned whether the impact downstream of a catastrophic failure had been estimated. The Developer noted that their dike has been checked by engineers and deemed safe.

A participant asked whether the paste backfill, which replaces the vein zone that the developer identified as the area where most water flows through inside the mine, create a zone that water flows through in large amounts, potentially leaching metals into the groundwater system? The developer indicated an opinion that this was unlikely, that water was more likely to flow along the path of least resistance and that path was not likely to be in the paste backfill area. However, the developer noted that further study on likely groundwater flow paths during and after mining may be required.

The developer stated an opinion that cumulative effects should focus on how separate projects impact the same watershed, rather than a series of changes to the environment over time from this one development being considered a cumulative effect. The developer feels it will be protecting the environment more when the mine is open than it ever was when the mine was closed, given that Canadian Zinc will be treating mine water where it had not been treated for 25 years. The developer also identified that it is upgrading a variety of its water monitoring and management systems voluntarily as part of its overall goal of upgrading the mine to 2008 environmental standards. The developer argued it could have avoided EA and gone straight to permitting merely by applying for the same mine Cadillac had applied for in 1980, via S.157(1) of the MVRMA, but chose not to.

One participant felt the potential cumulative effects from the Cantung Mine in combination with the Prairie Creek mine should be considered during this EA. One scenario that perhaps merits consideration would be a major storm event hitting both mines at the same time, with potential failure of water control facilities and a large release of untreated water to the South Nahanni watershed at one time. The Developer noted that recent analysis by consultants indicates that the berm around the water control facilities could handle a 100 year flood event easily. The Developer also indicated that it was having work done to look at the ability of the dike-wall to withstand an earthquake.

The Developer noted that work has been ongoing by Parks Canada and a team from the University of Saskatchewan looking at the aquatic resource health in the South Nahanni watershed. The Developer's opinion was that the studies to this point show little impact from the mine operations on aquatic resources in the Prairie Creek area, even though prior to 2006, there was no treatment of mine-water before it entered Harrison Creek and Prairie Creek immediately after. The Developer felt that in large part that there was no noticeable impact because of the massive dilution effect of the Prairie Creek, which moves "thousands" of times as much water through the area compared to Prairie Creek mine-water outflows.

Winter Road

One participant argued that the EA should be focused on the road, the mine and impacts on water quality. The Winter Road was raised by several local participants as a big issue. Some participants felt it needed to be scoped in to the environmental assessment. It was noted by Canadian Zinc Corporation that they already have a permit to build and operate the winter road, so they consider it exempt from environmental assessment, and this opinion has been supported by the Supreme Court of the NWT.

Review Board staff noted that all the opinions and concerns of community members are valued at the scoping stage, and that if there are concerns about the winter road, they should be raised in this venue. At the same time, it was reiterated that the winter road has been permitted and is subject to "grandfathering" under section 157(1) of the MVRMA, as determined by the Supreme Court of the NWT. The Review Board looks at all issues raised during scoping before determining what can and should be looked at during the environmental assessment.

Discussion of whether or not access to the winter road can and should be controlled ensued. There was confusion about who will control access. The Developer raised the possibility of it becoming a private road, which led to community concerns and questions about what is meant by a "private road". A representative of INAC noted they are working with Canadian Zinc and communities on the possibility of making the Winter Road a "private road" along which access could be controlled. Currently however, making it a private road would require a lease, and that cannot occur under the current rules set out in the Dehcho Process. The Developer, INAC and members of the Dehcho First Nations may continue discussions looking at ways to control road access. Road safety and hunting access, especially access of people from outside the region, were identified as key issues. The possibility of having a gate across the road was raised, as was having a monitoring station staffed by local people to keep track of people accessing the road.

It was pointed out that much of the proposed road may be inside the proposed expanded Nahanni National Park Reserve, where firearms would be illegal to carry. However, another participant noted that there are discussions ongoing at Parks Canada about whether or not the winter road will be considered inside the Park or in some sort of exempt corridor.

A participant noted that the winter road would likely be used for the fall hunt, with four wheelers and ATV's, between September and October. How would the developer monitor the use of the road when it is not actively open? The developer indicated they are open to looking at a variety of options for controlling access, including a gate at Grainger Gap, temporary bridges that can be removed, and a manned surveillance camp. None of these options have been confirmed. One of the representatives of the developer indicated that access to the area is often by boat and so it is questionable whether any new controls will work.

A participant asked whether the Developer had estimated likely new traffic along the winter road, between project-related activities and likely use by harvesters and the like. The Developer has not made any estimates of likely use beyond that of project-related activities. The Developer did note that much of the winter road would be through a narrow corridor between the boundaries of a National Park, constraining the ability to out of region hunters to make use of the area.

The Developer identified that the Tetcela River crossing is possibly a candidate for a crossing structure, but that both the Grainger and Liard Rivers would likely have ice bridges.

A participant raised the issue of impacts on wildlife from collisions along the winter road. The Developer noted that they will be looking into advisories for areas in which trucks should slow down, both to protect loads and to protect drivers, equipment and animal safety. This will be incorporated into Facility Operating Plan. The Developer noted that it would take approximately 6 hours to drive the length of the winter road with an average speed of 30km/hour. The Developer noted that in the draft Memorandum of Understanding they proposed with the community of Nahanni Butte, there are provisions for compensation for loss of traditional harvesting in the area of the mine and road.

A participant asked whether the winter road could be contracted out to a company for maintenance, repairs and monitoring etc. The developer identified that ultimately, the Winter Road was its responsibility, so that any contractors would have to live up to the environmental standards committed to by Canadian Zinc under its land use permit.

Mine Closure and Reclamation

Participants brought up the subject of Mine Closure and water management post-closure. One concern was the long term potential for groundwater to flow through the backfill/ dolomite and impact the water quality of the creek (discussed above in water quality).

A participant asked whether the developer would have the money available for cleaning up the mine at closure. It was explained by the developer that INAC contributes an estimate of likely closure costs if a third party has to do the clean up and this amount is forwarded to the MVLWB for inclusion as a requirement of the water license.

Also in the Mine Closure concerns were the Waste Rock Pile (WRP) and the concern of metals being leached into the water system from this facility above Harrison Creek. The developer noted that the rock has very little concentrate to begin with and at closure, the WRP would be covered with clay to minimize contact of water with the WRP.

Other Issues
A question was asked about how the tailings temporarily stored on the surface near the water management ponds would be managed. The developer indicated that there will usually be moisture content in the "sand-like" tailings, inhibiting dust issues, but that in dry conditions, water would be sprayed over the tailings to keep dust down. The developer did indicate that tailings may be held in that location throughout the whole life of the mine, but the developer feels all tailings can be placed back underground before the mine is reclaimed.

The developer indicated that 95% of the issues brought up by community members in discussions with them relate to when the mine will open and would there be jobs available.

A participant noted that the mine has been in existence since 1920 so something should be done about getting it running. The same participant then noted that the people didn't know about the road going through when Cadillac owned the mine. The people of Nahanni Butte were never consulted on the road or the mine back then.

Alistair MacDonald of the Review Board staff concluded with a note of thanks to all participants and a re-iteration that this is only the start of the EA process and that there are many more avenues for dialogue and public input along the way.

Closing Prayer by Flora Cli

Scoping session adjourned at approximately 4:40 pm

NOTES FROM INDEX CARDS SUBMITTED DURING THE SCOPING SESSSION

- 1980 EA documents required – Developer identified they have some but not all of EA documents
- Water quality – training and employing of local environmental monitors was desired
- How many spills have been reported through the years of operation?
- Protecting the water and land is the way of living, we (the people) have to live here
- Community members expressed concern that they don't see water sample results
- Winter road – stream crossings very sensitive
- Focus on positive economic effects as well
- How long will this EA take? During this EA process, does CZN hold a permit that will expire and will this EA process start all over again? (Addressed by EAO)
- There needs to be more jobs for Nahanni Butte from the Mine.
- Winter Road Hunters: I do not want to see or hear about strangers hunting in that area. Is there a way to keep that from happening? (My grandparents are concerned about this too).
- Concerned about the water. Today tap water is undrinkable. Water plant here is under construction. River water I feel I have to boil in order to drink it.

Mackenzie Valley
Review Board

PRAIRIE CREEK MINE ENVIRONMENTAL ASSESSMENT
- [redacted] SIGN UP SHEET

Community: Nahanni Butte	**Meeting Date:** Sept 30/08
Facilitator: Alistair MacDonald	**Place/Room:** Band Office

Name	Organization
17. Al MacDonald	Review Board
18. Nicole Spencer	Review Board.
19. Lloyd M'	
20. Julie Jackson	INAC - yellowknife
21. Marc Casas	INAC WRD - Yellowknife
22. Chief Fred Teson	NB Band - Chief
23. Dana Haggarty	Parks Canada
24. Fraser Fanning	INAC
25. Jus Simpson	Review Board
26. Lorraine Vital	NB Band Councillor
27. Wilbert Antoine	CZN
28. David Hanley	CZN
29. Chris Reeves	CZN
30. Jane Konisenta	NB Band Councillor
31. STEPHEN HERRETT	LINDBERG LANDING
32. Don Konisenta	Nahanni Butte DFN
33. JOEL HADER	GNWT - ENR

Mackenzie Valley
Review Board

PRAIRIE CREEK MINE ENVIRONMENTAL ASSESSMENT
[redacted] DISTRIBUTION LIST SIGN UP SHEET

Community: Nahanni Butte	**Meeting Date:**
Facilitator:	**Place/Room:**

Name	Organization
1. LORRAINE VITAL	NSDB
2. Pauline Campbell (Vital)	
3. BurtonCampbell	
4. Peter MacCallum	
5. Jammy Matou	
6. George Betsaka	
7. Mike Vandell	INAC
8. Steve Vandell	INAC
9. Don Hardisty	NSDB
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