



CANADIAN ZINC
CORPORATION

October 19, 2005

****via email/post****

Attention: Martin Haefele
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
5102, 50th Avenue
PO Box 938,
Yellowknife, NT X1A 2N7

Dear Mr. Haefele:

**Response to Questions on Drilling Additives and Sumps made during the Public Hearing
LUP MV2004C0030, MVEIRB File EA 0405-02**

Canadian Zinc Corporation (CZN) is pleased to provide this letter in response to questions on drill additives and sumps that were made during the Public Hearing Conference on October 6, 2005.

In the Developer's Assessment Report (DAR) on page 23, CZN listed six additives that may be used during the drilling program. These are 550X Polymer, GSX 20, Calcium Chloride, Linseed Soap, Big Bear Rod Grease and Kopr Kote. The first three of these are possible additives to drill water, while the latter three are potentially applied to the drilling equipment. Product information is available for the first four additives, and is attached.

550X Polymer is a mud frequently used to maintain drill water circulation. It is non-toxic and has no dangerous impurities. GSX 20 is a biodegradable complex, periodically used in fractured rock for bit cooling. It does not contain environmentally-sensitive metals. Calcium chloride is used to prevent drill water from freezing when drilling in permafrost. Linseed soap is used to lubricate the drill core tube. Big Bear Rod Grease is applied sparingly to drill rods to limit corrosion and wear. Kopr Kote is applied in very small quantities to drill rod threads so that rods can be easily uncoupled.

Calcium Chloride was the additive that appeared to generate the most concern at the Hearing. As stated above, this additive is only used for drilling in permafrost. In the drilling undertaken at Prairie Creek to date, this additive has only been used for drilling on the Zebra claims to the north of the mine, close to the high mountain pass into the Sundog Creek catchment. If and when the additive is used, the drill water is recycled at the collar of the borehole back down the hole to maintain water circulation. Very little, if any, drill water with the additive discharges to the sump dug nearby.

As stated previously, a sump is dug nearby for drill water and cuttings, but is usually only used for the first few metres of each borehole when there is drill water return circulation. Thereafter,

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circulation is lost and there is no further use of the sump. Sumps are usually dug approximately 1 m deep. Only a fraction of the dug volume is used for cuttings, and the dug material is replaced on completion of the hole.

Based on the above, it should be clear that the drill additives that may be used in the proposed drilling program are either non-toxic, or are used sparingly if at all and pose little threat to the environment and wildlife. The additive of most concern, Calcium Chloride, likely will not be used at all, and if it is, very little will be discharged to sumps and remain as a residue. In any event, the residue would not be available to foraging wildlife as the sumps are effectively backfilled.

We trust the above information addresses the questions raised, and demonstrates that CZN's drill water management is sound and does not require modification.

If you have any questions please contact us at 604-688-2001

Yours truly,
CANADIAN ZINC CORPORATION



David P. Harpley, P. Geo.
Environmental Coordinator