

Reaching Out

TRAIL
HEALTH &
ENVIRONMENT
COMMITTEE



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Lead Levels Up Slightly During Hot, Dry Summer

Despite a general downward trend in children's blood lead levels in Trail, testing in 2002 showed slightly higher average levels than the previous year. While the results are no cause for alarm, they serve as a good reminder of the importance of personal and household habits that reduce exposure to lead.

Why the increase in lead levels last fall? "Although Teck Cominco shut down the smelter in August and followed the same dust control procedures used during the longer shutdown in 2001, more dust seems to have spread into the community in 2002."

For the past two years, the Trail Lead Program has focused its testing on children less than 3 years old. That's the most vulnerable age group due to a tendency for little explorers to put fingers and other objects into their mouths often.

Participation in the blood lead testing clinic was down slightly in 2002, with 75% of invited children attending. The graph to the right shows the history of children's blood lead levels in Trail compared to background lead levels in the U.S.

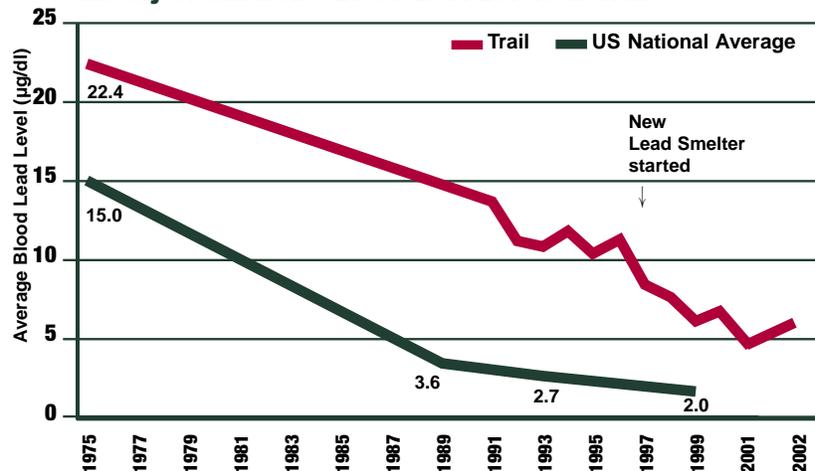
The range of blood lead levels in 2002 was 1.5 – 22.8 µg/dL. Eighty-three percent of children had levels below 10 µg/dL and 92% had levels below 15 µg/dL. In 2003 we hope to come even closer to the goals set for 2005:

- At least 90% of children with blood lead levels less than 10 µg/dL.
- At least 99% of children with blood lead levels less than 15 µg/dL.

While we're making progress toward long-term goals, infants and toddlers in this community are still vulnerable to lead exposure. Fortunately, there are easy ways to minimize their risk. Hand washing is one of the healthiest

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History of Children's Blood Lead Levels in Trail



habits we can teach our youngsters. It's also important for families to remove shoes at the door and keep floors clean by vacuuming and damp mopping.

To all the families who participated in the fall 2002 blood lead testing clinic, we say a big thank you! We can all do our part to keep children in this community healthy. ●

What Is Teck Cominco Doing To Reduce Stack Emissions And Dust From Its Property?

Why is it important to reduce emissions further?

Folks who've lived in the Trail area for a while know that the air quality has improved substantially, especially since the new Teck Cominco lead smelter started up in 1997. Not only has the air become visibly cleaner, but levels of lead, arsenic and cadmium in community air dropped by 70 – 80% from 1995 to 1999.

However, the Trail Community Lead Task Force recommended in 2001 that the best way to further reduce potential health risks from metals in

the environment would be to keep improving air quality. Even though young children receive most of their lead exposure through hand-to-mouth activity rather than breathing, much of the lead in dust in their environments comes from recent smelter emissions.

How are stack emissions being reduced?

In 2001, Teck Cominco began a project to find the top priorities for improvements in emission controls. The project focused first on the various types of systems that capture metals before they can get up stacks. The plants that were releasing the most metals were addressed first. Operating procedures for the plants and for their emission control equipment were improved so that their performance would be more consistent. Environmental monitoring results are reported daily to the plants to provide feedback on performance. The graph below shows that, other than in 2001 when Trail Operations was shut down for over 3 months, 2002 saw the lowest annual average air

lead level since the new lead smelter started operating.

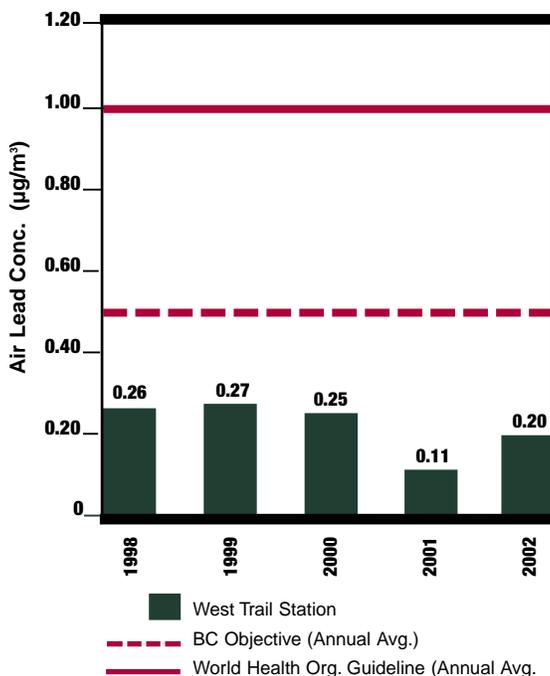
How is dust from the property being reduced?

A top priority for 2003 for Trail Operations is to find ways to further reduce the risk of dust losses from material stockpiles on the property. Currently, many of the large stockpiles are covered with "tarps" and others are sprayed with dust suppressant and monitored regularly. On-property roads are also cleaned frequently.

However, as noted in the story on blood lead levels, the unusually dry and windy conditions in the summer of 2002 appear to have led to dust being blown from the smelter property into the community. Teck Cominco has identified the highest priority material stockpiles and is developing an action plan to put in place by spring. New actions for improved dust control may include the use of water sprays, different types of dust suppressants, additional "tarps" on some piles or enclosing some piles in buildings.

The community of Trail can expect to see continued improvements in air quality and to receive ongoing reports on Teck Cominco's emission reduction plans and progress. ●

**Annual Average Air Lead Levels
West Trail Station**



What Is Being Done To Control Dust Levels Out In The Community?

Street Cleaning

The Trail Community Lead Task Force also recommended that cleaning of city streets should be carried out regularly using effective methods. In the 1990s, the Task Force found that lead levels in street dust were high enough to be a potential source of lead exposure to young children if dust were to be blown or tracked into homes. The Task Force monitored and reviewed the City of Trail's street cleaning program and suggested that not only was it important to sweep and "flush" the streets several times throughout the summer, but that care must be taken to avoid stirring up dust when performing the work.

Whereas in many other small towns, the streets are cleaned up in the spring and then do not see a street sweeper again over the summer, the City of Trail performs at least two extra sweeping/flushings after the major spring cleanup. The downtown core is swept and flushed weekly. The City also tries to ensure that the roads are pre-wetted prior to the sweeper brush hitting them, so that clouds of dust are not stirred up in the process. This is very difficult to accomplish during the spring cleanup when there's a lot of sand on the streets. Fortunately, the sand applied to the streets over the winter is "clean", so the lead levels on the streets during spring cleanup are relatively low.

Unpaved Alleys

As per Task Force recommendations, a long-lasting, environmentally-friendly dust suppressant is applied to unpaved alleys and other areas in and around the city in June each year. The cost of this program is split by the City of Trail and Teck Cominco. The City also applies asphalt milling by-product from its paving program onto some unpaved roads or road shoulders each year, to provide more permanent dust control.



City water truck cleans up.

Greening

The City of Trail and Teck Cominco also continue to work together to provide grass cover on bare ground areas, such as the hillside below Shavers Bench. This work has typically involved applying composted organic material mixed with sand, then hydroseeding with a drought tolerant grass mixture. ●

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Dust control on city alleys.

Thallium Levels Low In Trail

In an incident at Teck Cominco in 2001, contract workers were exposed to high levels of thallium during maintenance on a boiler. "Thallium is a naturally occurring metal commonly found in the ores that feed smelters such as Trail Operations."

The incident prompted Teck Cominco to review thallium levels in air, soil, and garden produce to ensure there was no hazard for the community at large. The review showed thallium content of samples to be slightly higher than background levels, but lower than levels associated with a health risk.

Further to that review, the Trail Health and Environment Committee and the

Interior Health Authority recommended a study of urine thallium levels in Trail residents.

The study was run in conjunction with the 2002 blood lead testing clinic. Researchers invited 50 parents of children attending the lead clinic to be tested for thallium exposure. Subjects included residents in neighborhoods close to the smelter. There was an equal split between people who eat produce grown in the Trail area and those who do not.

Participants were interviewed by phone to make sure they represented the general population. No one with a possible occupational

exposure was included in the study. Study participants provided urine specimens, which were sent to a hospital in Vancouver for analysis.

The average urine thallium level was 0.25 micrograms per litre (ug/L), with all results well below the World Health Organization guideline for the general population of 5.0 ug/L. There was no significant difference in urine thallium levels between consumers and non-consumers of locally grown produce.

Thank you to all those who participated in the thallium study. It is reassuring to know that the average urine thallium level in Trail is comparable to that of the general population in the US. ●

Educate Yourself About Lead

The Trail Lead Program (through Interior Health 368-5323) has many education projects ongoing in the community:

- In 2002, a new Lead Health brochure was developed which combined and updated the information found in the original series of Task Force brochures. This new brochure is available through: Trail Health Center, Dr. clinics, Trail Regional Hospital maternity ward, and mailed to parents.
- Annual newsletter mailed to every household in Trail.
- Radio and newspaper advertisements throughout the spring and summer, on topics such as: lead and nutrition, lead and pregnancy, blood lead testing, reducing lead in the home and yard.
- Storybook aimed at preschoolers – available through daycares and preschools.
- Ongoing presentations to community groups such as Building Beautiful Babies.

For more information about the Trail Health & Environment Committee, contact Trail City Hall, 1394 Pine Avenue. Phone 364-1262

What education messages do families need to know about lead?

- Good hygiene is the key. Wash your children's hands frequently throughout the day and always before snacks and meals. Keep fingernails short and clean.
- Keep your floors clean by vacuuming and damp mopping. Leave your shoes at the door.
- Wash children's toys frequently, especially the ones your child particularly likes to chew.
- Encourage your children to eat a well-balanced diet high in calcium and iron. Garden produce should be washed before it is eaten. Feed young children snacks and meals in a high chair (after you have washed their hands).
- Keep bare dirt areas in the yard to a minimum. Sandboxes are great, especially if they are kept covered when not in use. Wash your children's hands after playing outside.
- When renovating older homes, take special precautions to avoid exposure to lead-bearing dust and paint chips (especially for pregnant women and young children).